

# GIS EMERGENCY MANAGEMENT IMPLEMENTATION PLAN



## THE INDIANA COUNTER-TERRORISM AND SECURITY COUNCIL

FOR OFFICIAL USE ONLY  
JUNE 2003

# C-TASC GIS Emergency Management Implementation Plan

**Primary Coordinating Agency:** The Indiana Counter-Terrorism and Security Council (C-TASC) Crisis and Response Mapping Center (CRMC).

## Table of Contents

<b>I. INTRODUCTION.....</b>	<b>1</b>
Overview.....	1
Why GIS?.....	1
Scope .....	1
GIS Integration Points.....	2
GIS Application Software and Data.....	2
Commercially Available Off-The-Shelf GIS Resources .....	2
IndianaMAP Source Data.....	3
Resources to Support This Plan .....	4
Primary Coordinating Agency .....	4
Supporting Agencies .....	4
State and Local Government GIS Resources .....	4
CRMC Mobilization .....	5
GIS Volunteer Response Teams .....	5
GIS Volunteer and Private Organizations.....	5
Limitations .....	6
Organization of This Plan .....	6
GIS Integration Points.....	6
GIS Resources.....	6
<b>II. GIS TECHNOLOGY INITIATIVES .....</b>	<b>7</b>
The C-TASC Crisis and Response Mapping Center.....	7
The IndianaMap Vision .....	8
The IndianaMap Issues and Strategy .....	9
The IndianaMap Business Case .....	9
IGIC Statewide GIS Data Survey .....	11
<b>III. CEMP - BASIC PLAN .....</b>	<b>12</b>
GENERAL TASKS ELEMENT - GIS Integration Points.....	12
Mitigation – General Tasks.....	12
Preparedness – General Tasks.....	15
Response – General Tasks .....	15
Recovery – General Tasks .....	16
PUBLIC INFORMATION ELEMENT - GIS Integration Points.....	17
Mitigation – Public Information.....	17
Preparedness – Public Information .....	18
Response – Public Information .....	18
Recovery – Public Information .....	19

<b>IV. CEMP - OPERATIONS SECTION .....</b>	<b>20</b>
COMMUNICATIONS AND WARNING ELEMENT - GIS Integration Points .....	20
Mitigation – Communications and Warning .....	20
Preparedness – Communications and Warning .....	21
Response – Communications and Warning .....	21
Recovery – Communications and Warning .....	22
INFORMATION AND PLANNING ELEMENT - GIS Integration Points .....	23
Mitigation – Information and Planning .....	23
Preparedness – Information and Planning .....	23
Response – Information and Planning .....	24
Recovery – Information and Planning .....	24
RESOURCE SUPPORT ELEMENT - GIS Integration Points .....	25
Mitigation – Resource Support .....	25
Preparedness – Resource Support .....	25
Response – Resource Support .....	26
Recovery – Resource Support .....	26
<b>V. CEMP - EMERGENCY SERVICES SECTION .....</b>	<b>27</b>
FIRE FIGHTING ELEMENT - GIS Integration Points .....	27
Mitigation – Fire Fighting .....	27
Preparedness – Fire Fighting .....	28
Response – Fire Fighting .....	28
Recovery – Fire Fighting .....	28
HEALTH AND MEDICAL ELEMENT - GIS Integration Points .....	29
Mitigation – Health and Medical .....	29
Preparedness – Health and Medical .....	29
Response – Health and Medical .....	30
Recovery – Health and Medical .....	30
SEARCH AND RESCUE ELEMENT - GIS Integration Points .....	31
Mitigation – Search and Rescue .....	31
Preparedness – Search and Rescue .....	31
Response – Search and Rescue .....	32
Recovery – Search and Rescue .....	32
HAZARDOUS MATERIALS ELEMENT - GIS Integration Points .....	33
Mitigation – Hazardous Materials .....	33
Preparedness – Hazardous Materials .....	33
Response – Hazardous Materials .....	34
Recovery – Hazardous Materials .....	34
LAW ENFORCEMENT ELEMENT - GIS Integration Points .....	35
Mitigation – Law Enforcement .....	35
Preparedness – Law Enforcement .....	35
Response – Law Enforcement .....	36
Recovery – Law Enforcement .....	36
<b>VI. CEMP - HUMAN SUPPORT SECTION .....</b>	<b>37</b>
SHELTER AND MASS CARE ELEMENT - GIS Integration Points .....	37
Mitigation – Shelter and Mass Care .....	37
Preparedness – Shelter and Mass Care .....	37
Response – Shelter and Mass Care .....	38
Recovery – Shelter and Mass Care .....	38
FOOD AND WATER ELEMENT - GIS Integration Points .....	39

**FOR OFFICIAL USE ONLY**

Mitigation – Food and Water .....	39
Preparedness – Food and Water .....	40
Response – Food and Water .....	40
Recovery – Food and Water .....	41
ANIMAL HEALTH AND CARE ELEMENT - GIS Integration Points .....	42
Mitigation - Animal Health .....	42
Mitigation - Animal Care .....	42
Preparedness - Animal Health .....	43
Preparedness - Animal Care .....	43
Response - Animal Health and Care .....	44
Response - Animal Health .....	45
Response - Animal Care .....	47
Recovery - Animal Health .....	48
Recovery - Animal Care .....	48
DONATION/VOLUNTEER MANAGEMENT ELEMENT - GIS Integration Points .....	49
Mitigation – Donation/Volunteer Management .....	49
Preparedness – Donation/Volunteer Management .....	49
Response – Donation/Volunteer Management .....	50
Recovery – Donation/Volunteer Management .....	50
<b>VII. CEMP - INFRASTRUCTURE SUPPORT SECTION.....</b>	<b>51</b>
TRANSPORTATION ELEMENT - GIS Integration Points .....	51
Mitigation - Transportation .....	51
Preparedness - Transportation .....	51
Response - Transportation .....	52
Recovery - Transportation .....	52
PUBLIC WORKS AND ENGINEERING ELEMENT - GIS Integration Points .....	53
Mitigation – Public Works and Engineering .....	53
Preparedness – Public Works and Engineering .....	54
Response – Public Works and Engineering .....	54
Recovery – Public Works and Engineering .....	55
ENERGY ELEMENT - GIS Integration Points .....	56
Mitigation - Energy .....	56
Preparedness - Energy .....	57
Response - Energy .....	57
Recovery - Energy .....	58
DAMAGE ASSESSMENT ELEMENT - GIS Integration Points .....	59
Mitigation – Damage Assessment .....	59
Preparedness – Damage Assessment .....	59
Response – Damage Assessment .....	60
Recovery – Damage Assessment .....	60
<b>VIII. CEMP - HAZARDS SPECIFIC PLAN SECTION.....</b>	<b>61</b>
Introduction .....	61
Terrorism Consequence Management Element .....	62
Threat Conditions and Associated Protective Measures .....	62
Low Condition (Green) .....	62
Guarded Condition (Blue) .....	62
Elevated Condition (Yellow) .....	62
High Condition (Orange) .....	63
Severe Condition (Red) .....	63
Critical Infrastructure Protection Plan .....	63
Emergency Support Functions - GIS Integration Points .....	64

**FOR OFFICIAL USE ONLY**

Public Information.....	64
Communications and Warning.....	64
Information and Planning.....	64
Resource Support .....	64
Fire Fighting.....	65
Health and Medical .....	65
Search and Rescue.....	66
Hazardous Materials.....	66
Law Enforcement .....	68
Shelter and Mass Care.....	68
Transportation .....	69
Public Works and Engineering.....	70
Energy .....	72
Damage Assessment.....	73
<b>IX. CEMP – MEDICATION AND MEDICAL SUPPLY ACQUISITION AND DISTRIBUTION ANNEX...</b>	<b>75</b>
Medication and Medical Supply Acquisition and Distribution Element - GIS Integration Points.....	75
Mitigation – Medication and Medical Supply Acquisition and Distribution .....	75
Preparedness – Medication and Medical Supply Acquisition and Distribution .....	76
Response – Medication and Medical Supply Acquisition and Distribution.....	77
Recovery – Medication and Medical Supply Acquisition and Distribution.....	78
<b>APPENDIX A: GIS DATA – MINIMUM ESSENTIAL DATA SETS (MEDS).....</b>	<b>1</b>
<b>APPENDIX B: SOURCE DOCUMENTS .....</b>	<b>1</b>
Primary Source Documents .....	1
Secondary Source Documents .....	2
Additional Reference Documents .....	5
<b>APPENDIX C: TECHNOLOGY RESEARCH REPORT .....</b>	<b>1</b>
<b>APPENDIX D: ABBREVIATIONS AND ACRONYMS .....</b>	<b>1</b>

## I. INTRODUCTION

### OVERVIEW

This document presents the “GIS Emergency Management Implementation Plan” developed for the State of Indiana by the Indiana Counter-Terrorism and Security Council (C-TASC) under a consulting contract with Innovative Mapping Solutions, LLC (January 2003 – May 2003).

C-TASC was created by the Governor of Indiana in response to the 9/11 terrorist attacks. Its mission is to “develop and implement a comprehensive state strategy to address terrorism in Indiana.” In recognition of the value of Geographic Information Systems (GIS) data and technology, C-TASC has developed this plan to integrate GIS into Indiana’s existing Comprehensive Emergency Management Plan (CEMP) currently managed by the State’s Emergency Management Agency (SEMA). This document defines over 300 specific GIS tasks to support all current Emergency Support Functions. This report provides the framework for development of the C-TASC Crisis and Response Mapping Center (CRMC), and to directly integrate GIS software, data, and applications into the State’s Emergency Operations Center (EOC).

### WHY GIS?

From Indiana’s Strategy for Homeland Security: “Information management is critical for homeland security, and few applications are as important as a robust GIS system. Mapping can be used for emergency response planning and modeling, as well as response and recovery. Law enforcement can use it for mapping trends, thereby improving performance, and public health agencies can use it for syndromic surveillance. And because these agencies can share the base map with other local agencies, the GIS systems can be used for other applications as well” (pg.29). Also from a recent homeland security whitepaper published by Environmental Systems Research Institute, Inc. (ESRI) a summary of how GIS can be used to assist emergency management decision makers:

- Assess risks to community and infrastructure
- Establish specific mitigation/protection plans
- Determine scale of emergency
- Estimate rate of spread or progression
- Identify and evacuate at-risk populations
- Expedite and direct rescue efforts
- Provide accurate damage assessment
- Prioritize recovery efforts

### SCOPE

The Indiana Comprehensive Emergency Management Plan (CEMP) covers hazards, either natural or man-made disasters, and emergencies most likely to affect Indiana. This GIS Emergency Management Plan has been prepared as a supplement to the CEMP. The Plan addresses the geospatial technology, data and resources to support each CEMP element and specific mitigation, preparedness, response and recovery efforts.

The Indiana CEMP follows federal agency guidelines and is also the model used by each Indiana county and major city to develop their own local plan to respond to natural and man-made



disasters. A set of state, local and federal plans were analyzed to determine where and how GIS could benefit the Supporting Agencies. Additionally, a number of existing GIS emergency management analysis and planning software tools and spatial datasets were also evaluated. The result of this research and analysis is an implementation plan outlining how best to leverage and incorporate GIS technology and data into emergency management operations for the State of Indiana.

### **GIS INTEGRATION POINTS**

This plan identifies GIS integration points within existing state emergency management plans and other standards. The plan describes these points in terms of implementation tasks (Emergency Support Functions), which encompass all planning, design, development, training and deployment steps.

The contents and format of this plan follows SEMA's "Indiana Comprehensive Emergency Management Plan," including the "Medication and Medical Supply Acquisition and Distribution Element" annex.

The following documents were also identified as primary source documents to support this Implementation Plan:

- SEMA's Incident Command System Training Course. This course is based on the "ICS – Incident Command System" from the Federal Emergency Management Agency (FEMA).
- FEMA's "Federal Response Plan" (FRP). Defines federal emergency response guidelines, and outlines how the federal government implements the Robert T. Stafford disaster Relief and Emergency Assistance Act.
- "CONPLAN: United States Government Interagency Domestic Terrorism Concept of Operations Plan" addresses terrorist threats and weapons of mass destruction (WMD) incidents.

A large number of other source documents were also identified during the development of this plan. These documents were found to be valuable references and provided insights into emergency management/response and homeland security. All primary, secondary and other reference source documents are listed in Appendix B. Electronic copies of those documents available for distribution are also provided on CD-ROM.

### **GIS APPLICATION SOFTWARE AND DATA**

The State of Indiana has adopted Environmental Systems Research Institute, Inc. (ESRI) as its GIS technology platform. C-TASC was awarded a generous GIS software, data, and training grant by ESRI to help start the development of the CRMC; therefore, the focus is on applications and data that are stand-alone or are compatible with ESRI software.

### ***COMMERCIALLY AVAILABLE OFF-THE-SHELF GIS RESOURCES***

Commercially available Off-The-Shelf (COTS) GIS applications and data that have been developed by federal agencies and are available to state and local governments to support disaster planning, mitigation, preparedness, response and recovery are also evaluated.

The following COTS resources are addressed in this plan:

- CATS - Consequence Assessment Tool Set
- CAMEO - Computer Aided Management of Emergency Operations
- ALOHA - Aerial Locations of Hazardous Atmospheres
- HAZUS - Hazards US (Natural Hazard Loss Estimation Methodology)
- CVAT - Community Vulnerability Assessment Tool
- Inland Waterways Spill Response Mapping Project/Inland Sensitivity Atlas
- GNOME - the General NOAA Oil Modeling Environment
- ADIOS2 - Automated Data Inquiry for Oil Spills

Appendix C of this plan, the “GIS Technology Research Report,” addresses these resources in detail.

### ***INDIANAMAP SOURCE DATA***

In addition to the COTS data, a number of federal, state, and local government GIS data resources will be utilized to provide the digital map layers needed to support the CRMC. The Indiana Geographic Information Council (IGIC) is already implementing a detailed plan to document and organize a wide variety of geographic data, technology, and local support. The efforts are described in their I-Team Plan, The IndianaMAP Prospectus, and other council documents. The CRMC will work with IGIC to address the following data sources for the IndianaMAP:

- For federal government GIS data, the CRMC will incorporate data from the NationalMAP (TNM), and other initiatives like the Geospatial One-Stop (GOS), the Federal Geographic Data Committee (FGDC), and the National Spatial Data Infrastructure (NSDI). NIMA and USGS have also teamed up to create a Homeland Security Infrastructure Program (HSIP) Tiger Team Report. As a starting-point for Indiana, this report is used in Appendix B of this plan to define a Minimum Essential Data Set (MEDS) for the state.
- For state government GIS data, the GIS Steering Committee and GIS Task Force, organized through the Information Technology Oversight Committee (ITOC), will be the primary point of contact for the CRMC. One objective of the task force is to allow state agencies to share access to their internal GIS data layers through secure Intranet access.
- For local government GIS data, the CRMC will utilize the Indiana Geographic Information Systems Initiative ([INGISI](#)) statewide GIS data survey currently under development. This survey will identify local GIS data resources that are available to support homeland security and emergency management.

See Section II of this plan for more detailed information about the IndianaMAP.

For emergency management, the CRMC will use combination of the various GIS data layers to produce printed and digital map products to support the end users. These data layers come from a wide variety of existing (static) map sources that vary by geographic location, content, accuracy, age, and data formats. The CRMC also plans to overlay data layers from real-time (live) data sources through the Internet. The inclusion of real-time versus static data depends



on both availability and the user's needs. For example, a storm evacuation planning exercise would use static road map data with historic storm and incident information. During an actual storm emergency, however, the historic storm layers would be replaced by real-time weather data, and incident specific emergency response layers. The goal of the CRMC is to provide access to the best available data at the time and place it is needed.

## RESOURCES TO SUPPORT THIS PLAN

### PRIMARY COORDINATING AGENCY

C-TASC is developing the CRMC as the primary coordination and support group for GIS data and technology to support SEMA and all agencies identified in the CEMP.

### SUPPORTING AGENCIES

The following **Primary Coordinating Agencies** currently support the **Indiana CEMP** and carry out their assigned functional responsibilities. As such this plan addresses GIS issues directly related to their responsibilities:

INDIANA COUNTER-TERRORISM AND SECURITY COUNCIL, Clifford Ong, Director  
INDIANA STATE EMERGENCY MANAGEMENT AGENCY, Patrick Ralston, Executive Director  
INDIANA NATIONAL GUARD, George A. Buskirk Jr., The Adjutant General  
INDIANA DEPARTMENT ENVIRONMENTAL MANAGEMENT , Lori F. Kaplan, Commissioner  
INDIANA STATE POLICE DEPARTMENT, Melvin J. Carraway, Superintendent of State Police  
INDIANA STATE DEPARTMENT OF HEALTH, Gregory A. Wilson, Commissioner  
INDIANA STATE DEPARTMENT OF NATURAL RESOURCES, Larry D. Macklin, Director  
INDIANA OFFICE OF THE COMMISSIONER OF AGRICULTURE, Joseph R. Pearson, Assistant Commissioner  
INDIANA DEPARTMENT OF TRANSPORTATION , J. Bryan Nicol, Commissioner  
INDIANA OFFICE OF THE FIRE MARSHAL, Tracy Boatwright, Fire Marshal  
INDIANA DEPARTMENT OF FIRE AND BUILDING SERVICES  
INDIANA UTILITY REGULATORY COMMISSION, William McCarty, Executive Director  
INDIANA STATE BOARD OF ANIMAL HEALTH, Bret D. Marsh, D.V.M., Chief Administrative Officer  
INDIANA DEPARTMENT OF INSURANCE, Sally McCarty, Commissioner  
INDIANA STATE BOARD OF EDUCATION, Dr. Suellen Reed, Superintendent  
INDIANA FAMILY AND SOCIAL SERVICES ADMINISTRATION, John Hamilton, Director  
INDIANA DEPARTMENT OF CORRECTION, Evelyn Ridley-Turner, Commissioner  
INDIANA DEPARTMENT OF COMMERCE, Tom McKenna, Executive Director  
INDIANA DEPARTMENT OF LABOR, John Griffin, Commissioner  
INDIANA ATTORNEY GENERAL, Stephen Carter  
INDIANA DEPARTMENT OF ADMINISTRATION, David Perlini, Commissioner  
INDIANA BUDGET AGENCY, Marilyn Schultz, Director  
INDIANA STATE PERSONNEL DEPARTMENT, D. Sue Roberson, State Personnel Director  
INDIANA VOLUNTEER ORGANIZATIONS ACTIVE IN DISASTERS

### STATE AND LOCAL GOVERNMENT GIS RESOURCES

The state and many of its political subdivisions have GIS capabilities to support local governments in the event of an emergency, including manpower, equipment, supplies, data and skills.

The state has a GIS Steering Committee chaired by the State's Chief Information Officer and supported by a GIS Task Force organized through the Information Technology Oversight Committee (ITOC). GIS Steering Committee members represent all state agencies to provide strategic direction and share GIS information and data among agencies. This GIS Steering

Committee will therefore be the CRMC's primary interface point with state government agencies.

Part of the CRMC mission is to work with and through the Indiana GIS Council (IGIC) to help coordinate and support federal, state, local, and other government GIS resources. In line with SEMA's principles for providing emergency management support in the CEMP, local government GIS resources should be fully committed and trained by the CRMC as part of integrated emergency management/homeland security training activities. Incidents qualifying for CRMC assistance should have their GIS staff supplemented by assistance from state government resources, from a statewide network of local government GIS volunteers, and through contracts with private GIS firms.

### **CRMC MOBILIZATION**

The CRMC can be mobilized in two different ways. First, by SEMA's activation of the Emergency Operations Center, and second by C-TASC through an escalation of the Homeland Security Advisory System risk level.

The CRMC response level to a local request for assistance from SEMA is based on actual or potential shortfalls of resources:

1. Mobilize centralized CRMC resources
2. Mobilize regional resources from nearby unaffected areas
3. Mobilize statewide resources
4. Mobilize contracted resource support and data services as needed

The CRMC provides GIS support to SEMA through the EOC, so the CRMC response level is determined and managed by SEMA through the Incident Command System.

Escalating CRMC preparedness and response actions can also be triggered by C-TASC based on the current Homeland Security Advisory System risk level:

1. Guarded (Blue - General risk of terrorist attacks)
2. Elevated (Yellow - Significant risk of terrorist attacks)
3. High (Orange - High risk of terrorist attacks)
4. Extreme (Red - Extreme risk of terrorist attacks)

GIS support is provided to C-TASC based on the risk level either directly through the CRMC office or the EOC when activated. The CRMC response is determined by C-TASC using the general guidelines provided in the Terrorism Consequence Management Element in this plan.

### **GIS VOLUNTEER RESPONSE TEAMS**

The GIS Response Teams are volunteer mobile support units of the CRMC that provide GIS administrative, logistical, technical and operational support to state and local jurisdictional activities in the field. The GIS Response Teams are organized regionally. The CRMC is responsible for developing a GIS Response Team volunteer roster, and identifying its composition and procedures.

### **GIS VOLUNTEER AND PRIVATE ORGANIZATIONS**

The Indiana Geographic Information Council (IGIC) is the not-for-profit statewide GIS coordinating council that guides the development and use of GIS throughout the state of Indiana.

As a purely volunteer organization, IGIC has achieved much success through a dedicated and diverse group of professionals from private GIS businesses, educational institutions and most importantly the commitment and support of local, state and federal units of government.

## LIMITATIONS

As a part of Indiana's CEMP, the primary and supporting state agencies make every reasonable effort to respond in the event of a disaster emergency. However, state resources and systems may be unavailable or overwhelmed. There is no guarantee implied by C-TASC, the CRMC or this CEMP annex that a perfect response to disaster emergency incidents will be practical or possible. Rather, the support functions defined in this plan create a framework to utilize GIS resources to provide the best possible response.

## ORGANIZATION OF THIS PLAN

The main body of this document (Sections III – IX) follows the same organizational structure as the plan elements in the Indiana CEMP.

## GIS INTEGRATION POINTS

The GIS integration points for each element are described using the same phases of emergency management used by SEMA – Mitigation, Preparedness, Response, and Recovery. Each list of GIS Emergency Support Functions (Tasks) follows the CEMP layout and order, so that the GIS tasks can be easily integrated with the defined emergency management tasks and roles before, during, and/or after a disaster emergency. The following standards apply to the GIS task lists:

- Each GIS task item is assigned a unique reference number in the leftmost column (labeled “#”). As a cross reference, the associated Emergency Support Function number(s) from the Indiana CEMP primary source documents are also listed when available or applicable (labeled “√”).
- *GIS task items shown in italic font indicate long-term goals and objectives that are outside the current scope of the CRMC, but should be planned for future GIS support of emergency management.* Task scope, complexity and cost considerations were the primary criteria used to classify these items as long-term.
- In the general task description for each item, the term ‘application’ is often used to identify a set of procedures and/or software scripts/programs to accomplish the task.
- The first agency listed in the Resource column indicates the primary agency the CRMC will coordinate with for that task. Other agencies listed serve in a supplemental or backup role.

Each task list outlines the GIS implementation steps to design, develop, test, train, and deploy a comprehensive solution for each element.

## GIS RESOURCES

The GIS data and software to support these element are addressed in Appendix A & C.

## II. GIS TECHNOLOGY INITIATIVES

### THE C-TASC CRISIS AND RESPONSE MAPPING CENTER

C-TASC, as part of four statewide strategic technology initiatives to support emergency management and homeland security, is developing a statewide GIS to support mitigation, preparedness, response and recovery efforts. GIS is an essential element in planning, analysis and decision support for local responders. The CRMC will provide this GIS technology, data and applications support.

The CRMC is being tightly integrated with the SEMA's CEMP to help foster the integration of GIS data and technology throughout state and local government emergency operations. This C-TASC initiative will also become Indiana's GIS link to the Department of Homeland Security and other federal entities. Using open standards, the CRMC will aggregate and communicate detailed local critical infrastructure threat-level data as well as incident data with supporting federal agencies.

The CRMC will operate as a partnership for mutual support of GIS technology and resources among state agencies and county emergency operation centers; facilitate local, state and federal response to human and natural disasters; and establish a foundation to support field operations and public information. In doing so, the CRMC will help support and integrate the emergency management GIS capabilities of the primary state response agencies.

SEMA Emergency Operations Center The SEMA EOC will be GIS-enabled for quick decision-making, high-level modeling and analysis, printing, and large format viewing. Each computer within the EOC with Internet capabilities will be able to access a web-based GIS application for data viewing, information retrieval, and incident reporting.

SEMA Mobile EOC The SEMA Mobile EOC will be GIS-enabled for quick decision-making, modeling and analysis, printing and copying. Staff and laptops from the CRMC central office will also be mobilized to the SEMA Mobile EOC on an as-needed basis.

IDEM Mobile Trailer IDEM (Indiana Department of Environmental Management) provides mobile GIS support for response to environmental emergency situations and supports the CRMC. The CRMC will provide equipment and support for the IDEM Mobile Trailer on an as-needed basis.

Military Department of Indiana MDI will provide support to the CRMC particularly for critical infrastructure mapping. The CRMC will provide equipment and support to compliment their existing GIS capabilities and support data capture and large formatting map production.

Indiana Department of Information Technology (DOIT) and AccessIndiana For enterprise data storage, access and delivery, the CRMC will utilize a large volume of data sets for homeland security mapping available from federal, state and local government. The data will be maintained and accessed in a distributed environment. Data stored on servers will be accessed through web application servers. Data will also be delivered to non-GIS personnel via user-friendly Internet map services.

Indiana Geographic Information Council The CRMC is being developed in close collaboration with IGIC. The council, recognized by proclamation of the Governor of Indiana, represents over a dozen different sectors that utilize GIS, including counties, cities and towns, state and federal agencies, utilities and private industry. IGIC has been instrumental in a number of initiatives and projects in the state: Indiana is a leading I-Team<sup>1</sup> state, recipient of the 2002 ESRI<sup>2</sup> Special Achievement Award, a HAZUS<sup>3</sup> pilot area, NSGIC<sup>4</sup> member state, FGDC<sup>5</sup> cooperating partner, contains 4 NIMA<sup>6</sup> “133 Cities,” and is one of 8 states in the NGA<sup>7</sup> Center for Best Practices.

<sup>1</sup> I-Team – “Implementation Team,” national initiative spearheaded by the Federal Office of Management and Budget to energize the National Spatial Data Infrastructure

<sup>2</sup> ESRI – Environmental Systems Research Institute

<sup>3</sup> HAZUS – or “Hazards US,” FEMA’s multi-hazards loss estimation methodology pilot project with IMAGIS, Indianapolis/Marion County GIS and Hamilton County, Indiana

<sup>4</sup> NSGIC – National States Geographic Information Council

<sup>5</sup> FGDC – Federal Geographic Data Committee

<sup>6</sup> NIMA – “133 Cities” include Indianapolis, Ft. Wayne, eastern Chicago metropolitan area, northern Louisville metropolitan area; National Imagery and Mapping Agency, provides timely, relevant, and accurate geospatial intelligence in support of national security

<sup>7</sup> NGA – National Governors’ Association

## THE INDIANAMAP VISION

The Indiana Geographic Information Council has presented a vision for GIS in Indiana, identified as the “IndianaMAP.” This vision embraces the role of geographic information, technologies and innovative institutional agreements to enable improved government service to citizens. It also calls for an enhanced ability for citizens to stay informed and to engage in the democratic process. To achieve this vision, IndianaMAP encompasses a number of aspects:

- 1) Integration now of the best available data, focusing on local sources, with state and federal
- 2) A distribution mechanism that provides access to data and metadata (i.e., clearinghouse). IGIC currently operates a data clearinghouse through the IUPUI University Library
- 3) A web portal with tiered access for decision-makers and the public with a non-technical interface to viewing geospatial information
- 4) Planning through the I-Team process for 100% coverage of all 7 framework layers, with variable resolution (minimum 1:24:000), within 3-5 years
- 5) Education and outreach on the relevancy, importance and capabilities offered by the IndianaMAP

IndianaMAP will provide mutual benefit to each level of government that in turn shares in its development and maintenance. IndianaMAP will initiate a locally-based, distributed statewide GI program of mutual support to county emergency operation centers; facilitate local, state and federal response to man-made and natural disasters; and establish a foundation to support field operations and public information. It will:

- 1) Establish the interoperable framework of technologies necessary to support discovery, access, integration, and application of spatial information from the local to state level
- 2) Research and prototype methods to integrate GI from cooperating jurisdictions in Indiana (semantic interoperability)

- 3) Establish a policy forum to identify and address GI policy issues for government services, emergency/disaster management, and citizen democracy.

## THE INDIANAMAP ISSUES AND STRATEGY

Indiana faces issues similar to those facing the creators of the NationalMAP when looking toward local data sources. To fully achieve its vision, Indiana must develop processes, model agreements, guidelines, and technical solutions to overcome the issues related to data sharing, with the ultimate goal of compiling a public, seamless, computerized map statewide.

The challenges to GIS interoperability include the following:

- 1) Multiple GIS software platforms – e.g., ESRI (ArcView, SDE, ArcIMS); AutoCAD (Map, MapGuide); GeoSQL; Genamap; MapInfo; Smallworld; Intergraph (MicroStation, FRAMME, GeoMedia).
- 2) Multiple coordinate systems/projections – NAD27 and NAD83 State Plane – Indiana East and Indiana West, Lat/Long, UTM and user defined.
- 3) Multiple measurement systems – DMS, US survey feet, International survey feet, meters.
- 4) Multiple database schemas - different layering and file/feature naming conventions, field formats and attributes for GIS layers and tables.
- 5) Multiple graphic representations – different map representation and symbology for map features.

To-date, there are few established local/regional points-of-contact for GIS, or formalized agreements for sharing data or applications among county governments or with the state.

## THE INDIANAMAP BUSINESS CASE

There are many important reasons to build a multi-jurisdictional statewide GIS, including:

- Public Safety Mutual Aid – The County Sheriffs, Police Departments, Fire Departments and ambulance companies all make emergency mutual aid runs into neighboring jurisdictions. It would be valuable for all of these agencies to have access to road network, address, civil boundary, parcel and aerial photography information for areas surrounding their own jurisdiction.
- Disaster Planning, Mitigation and Response – Each county has an Emergency Management Agency which plans for natural and man-made emergencies. Many scenarios call for information outside of their county, such as specifying evacuation routes, following wind plumes, tracing heavier-than-air chemical spills, and locating sources and travel of contamination in bodies of water or sewers. The tornado of September 20, 2002 that crossed 32 counties in Indiana provided a critical reminder of the need for responsive disaster mitigation capabilities that can support and link jurisdictions throughout the state. Disaster mitigation plans are not only required for receiving FEMA funding, they help save lives.
- Drainage Management – Public works departments, in incorporated areas, and county surveyors have responsibility for storm water drainage. Since watersheds cross jurisdiction boundaries, it is useful for storm water planning and flood management to have a complete understanding of the water courses. There are instances where neglect or construction in one county has impacted flow in a downstream county.



**FOR OFFICIAL USE ONLY**

- Water Quality – As with drainage, surface water quality impacts all jurisdictions. It is valuable for environmental managers to have access to all watershed, wetlands and water course data to locate the sources of point pollution and non-point contamination.
- Transportation Planning – Metropolitan Planning Organizations plan for highways and thoroughfares in designated metropolitan areas. County highway departments plan roads in the rest of the state. Better information about roads and development will help road funding in all the counties, and reduce traffic congestion in urban counties. Each county has a department who assigns parcel and building addresses, and it is good practice to understand the existing addresses and ranges in neighboring jurisdictions.
- Economic Development – Planning organizations, Chambers of Commerce, economic development commissions and community foundations all understand the interdependency of the Indianapolis metropolitan area and therefore the need for regional planning for economic development.
- Water Service – Indianapolis Water Company has lines extending into the counties surrounding Marion County. All other counties have multiple municipal water service districts. It would be valuable to all of these providers to know development information and service territories to help them better plan services, and assist with maintenance and outage response.
- Public Health – County health departments perform epidemiology studies of contagious diseases and perform other public health planning and remediation programs (i.e., mosquito control) which would be aided by access to the data in neighboring counties. A recent restaurant bacteria case was traced to an establishment near a county line, and infected people in both counties.
- Utility Coordination – In areas covered by numerous water and sewer districts, and multiple gas and electric service providers, it would be valuable to each of the utility companies to have information about the “foreign” infrastructure that coexists or borders their service areas. It would also be useful to government agencies (for emergency response and planning) to know where all utility infrastructure is located.
- Community Studies – Universities and colleges (IUPUI, Indiana University, Purdue University, Butler University, University of Indianapolis, Marian College, Martin University, etc.) study the demographics, social conditions, program assets, land use, tax structure, business climate, agriculture, and environment of communities in central Indiana. Access to unified regional data would be useful for these studies.
- Improved Citizen-Centric Services – IndianaMAP can become an important resource in helping to engage citizens in understanding and participating in the debate of issues facing our local and state governments. For instance, IndianaMAP provides an opportunity for citizens to visualize the impact of proposed land use changes prior to these actions taking place.

## IGIC STATEWIDE GIS DATA SURVEY

The Indiana Geographic Information Council (IGIC) is the statewide GIS coordinating and administrative body to the grass roots Indiana GIS Initiative ([INGISI](#)). As part of this initiative, INGISI will coordinate a living, detailed inventory to identify state and local GIS data resources that could be available to support homeland security and emergency management. The C-TASC CRMC is actively working with the council to assist in this process.

### III. CEMP - BASIC PLAN

The GIS integration points in this section address the General Task Element and the Public Information Element of the CEMP. The GIS integration points in these elements establish much of the GIS foundation and framework to support the subsequent plan elements.

#### GENERAL TASKS ELEMENT - GIS INTEGRATION POINTS

The general element consists of those tasks common to all agencies and Emergency Support Functions. Close attention should be given by all agencies to the GIS foundation and framework tasks in this section. A well designed GIS database and graphical user interface can serve many masters. Many of the federal, state, and local government GIS data layers have broad-based use and appeal to support emergency management. Taking full advantage of distributed, web-based GIS technology, these common framework layers can be seamlessly shared among many different users and applications. With each supporting agency contributing their unique information to this common framework, a dynamic map of critical information is mosaiced together to support a coordinated response that can save lives.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agencies:**

- All Supporting Agencies (as originally identified in the CEMP or Annex)

#### MITIGATION – GENERAL TASKS

Mitigation actions include those that reduce the effects of a future disaster, lessen the likelihood of experiencing damaging effects, or remove the possibility of being affected. For GIS, this includes initial foundation level planning tasks to create a GIS framework to support the planning process. It also includes establishing the GIS technology infrastructure, data, and applications to access public, commercial, and critical infrastructure data. These tasks must be accomplished while also protecting the legal rights, confidentiality and privacy of the data subjects and data stewards.

#	√	MITIGATION TASK	RESOURCE
1	1-1 & 1-7	Develop an Indiana GIS Implementation Plan for Emergency Management and Homeland Security (this document)	Indiana State Emergency Management Agency (SEMA)

#	√	MITIGATION TASK	RESOURCE
2	1-1 & 1-7	<p>Develop an Indiana GIS Crisis and Response Mapping Center Plan and a GIS Data Clearinghouse to support emergency management and homeland security:</p> <ul style="list-style-type: none"> <li>• Develop response-level plan for local requests for assistance</li> <li>• In conjunction with the Terrorism Consequence Management Element develop a response plan for escalating threat conditions and associated protective measures of the Homeland Security Advisory System</li> </ul>	Indiana Geographic Information Council (IGIC) SEMA
3	1-1	IndianaMAP - determine the current on-hand GIS data for Indiana at the federal, state, local, private industry, and commercial levels	IGIC SEMA
4	1-1	Determine minimum essential GIS data requirements for statewide coverage to support basic emergency management and homeland security needs	IGIC NIMA & USGS Homeland Security Infrastructure Program (HSIP)
5	1-1	In support of the Terrorism Consequence Management Element section on Vulnerability to a Terrorist Attack, identify critical facilities that are vulnerable (Critical Infrastructure Protection Plan (CIPP) Inventory)	SEMA Local Emergency Management Agencies (EMA) Local Emergency Planning Committees (LEPC) Military Department of Indiana (MDI)
6	1-1	In support of the Terrorism Consequence Management Element, develop/update Indiana's CIPP to evaluate that vulnerability, and determine what mitigation actions could be taken to prevent or reduce that vulnerability	SEMA MDI
7	1-1	Determine the need to implement changes to Indiana law to enable the <u>secure</u> acquisition, repackaging, distribution and use of GIS data from local government, utility company, commercial, and federal resources during an emergency. [e.g. Indiana Open Door Law, Indiana Access to Public Records Act, Community Right-to-Know Act, and Indiana Home Rule regulations]	Indiana Attorney General
8	1-1	Implement identified revisions in Indiana law and regulations to allow the timely implementation of GIS support initiatives	Indiana Attorney General SEMA

**FOR OFFICIAL USE ONLY**

#	√	MITIGATION TASK	RESOURCE
9	1-1	Identify a method for managing legal, security, and ethical questions related to For Official Use Only, commercial, and private GIS data during an emergency	SEMA ITOC MDI
10	1-2	Identify potential GIS funding sources that are available to develop and support mitigation activities	All Agencies
11	1-3 & 1-6	Design primary and secondary IT communication CRMC architecture for the GIS hardware, software and communication network infrastructure to encompass: State Agency ESRI GIS Intranet, local government IT communication and GIS data interoperability, MDI ESRI GIS network, and Federal Government* connectivity and interoperability for GIS data access  *Department of Homeland Security (DHS), EPA, FBI, Department of Interior - USGS, Department of Health, Department of Transportation (DOT), and others	ITOC MDI Open GIS Consortium (OGC) All Agencies
12	1-4	Determine the need for implementing a statewide GIS mutual aid agreement and memorandum of understanding for GIS technology, data, and services with support agencies and ancillary or contract support services	All Agencies
13	1-5	<ul style="list-style-type: none"> <li>Identify Emergency Support Function GIS staff</li> <li>Maintain a cadre of trained personnel (government, contractors and volunteers) to operate at the local and state level in providing GIS support services during an emergency</li> </ul>	SEMA INGISI ITOC All Agencies
14	1-7	Identify requirements of Emergency Support Function, including standard operating procedures, plans, and checklists for lead and support agencies	All Agencies
15	1-8	Train each supporting agency to develop their own detailed internal plans, policies and procedures to support the Statewide GIS Implementation Plan for Emergency Management and The C-TASC Crisis and Response Mapping Center for Homeland Security	SEMA All Agencies

**PREPAREDNESS – GENERAL TASKS**

Preparedness typically encompasses those actions by which team members maintain a state of readiness, whether it is current lists of resources, updating procedures, or conducting training or exercises. For GIS this includes detailed operation level planning, implementation, training and resources-related tasks necessary to respond to and recover from any disaster.

#	√	PREPAREDNESS TASK	RESOURCE
16	1-10	Supporting agencies develop and maintain GIS standard operating procedures for GIS Emergency Support Function	All Agencies
17	1-10	Develop/update Critical Infrastructure Protection Plan for local government [Counties & Cities]	SEMA Local Government All Agencies
18	1-11	Develop and conduct training and education programs for GIS Emergency Support Function staff	All Agencies
19	1-12	Develop and maintain roster of GIS Emergency Support Function staff and auxiliary remote/mobile centers for the CRMC and field operations	All Agencies
20	1-13 & 1-15	Develop and maintain a GIS Emergency Support Function manpower list with essential location information, contact information, and specialized skills of personnel	All Agencies
21	1-14 & 1-17	Develop lists of detailed GIS data and resources requirements to support a full range of emergency management and homeland security applications and needs	IGIC HSIP All Agencies
22	1-17	Determine and develop secure and redundant GIS layers of local City/County critical infrastructure data including a DVD set of critical data with an integrated data viewing and printing application	MDI SEMA (LEPC) Local Emergency Management Agency All Agencies

**RESPONSE – GENERAL TASKS**

The response section includes the detailed incident level tasks necessary to respond to any disaster. Response tasks include actions such as notification, warning, activation, mobilization, assessment, coordination, documentation, protective actions, etc. For GIS this includes:

#	√	RESPONSE TASK	RESOURCE
23	1-22	Map incident location on the IndianaMAP base to help assess scope, magnitude, and extent of incident	SEMA
24	1-23	Support determination of response needs (EOC activation, Mobile EOC deployment, Rapid Response Team, Volunteer Response Team, GIS services contractors, or combinations)	SEMA



**FOR OFFICIAL USE ONLY**

#	√	RESPONSE TASK	RESOURCE
25	1-23	Coordinate mobilization, routing, collection and transportation of needed regional resources from non-affected regions	SEMA
26	1-23	Coordinate statewide mobilization of resources	SEMA
27	1-23	Coordinate with MDI for GIS and critical infrastructure information support	MDI
28	1-31	If Joint Information Center(s) are activated, send CRMC representative to its location(s)	SEMA
29	1-25, 1-27 & 1-32	Implement CRMC map request and distribution model to support local, state and federal information needs: <ul style="list-style-type: none"> <li>• Consolidate and map information concerning Emergency Support Function field activities</li> <li>• Provide situation site maps of Emergency Support Function activities to EOC supervisor as required</li> </ul>	SEMA

**RECOVERY – GENERAL TASKS**

The recovery section includes the detailed incident level tasks necessary to recover from any disaster. Recovery actions consist of returning the community to normal. For GIS this includes:

#	√	RECOVERY TASK	RESOURCE
30	1-22	Determine when demobilization criteria has been met and implement demobilization procedures	Local Emergency Management Agency SEMA
31	1-35	Coordinate recovery and restitution of unused regional and state resources	Local Emergency Management Agency SEMA
32	1-38	Support other agencies with maps and reports to prepare and submit required documentation for cost recovery to state and federal officials	SEMA
33	1-38	Prepare appropriate GIS response After Action Reports	All Agencies

## PUBLIC INFORMATION ELEMENT - GIS INTEGRATION POINTS

The Public Information element provides information to the public during a major disaster or emergency and supports local government in support of their operations.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

### Support Agencies:

- State Emergency Management Agency

## MITIGATION – PUBLIC INFORMATION

Mitigation actions include defining requirements and identifying GIS resources to support public information dissemination needs during a disaster emergency.

#	√	MITIGATION TASK	RESOURCE
34	1-39	<p>A. Define Digital Map Publishing and Information Security Requirements:</p> <ol style="list-style-type: none"> <li>1. Data security issues</li> <li>2. Data confidentiality and privacy issues</li> </ol> <p>B. Define digital and Internet-based Map Requirements:</p> <ol style="list-style-type: none"> <li>1. County storm and flood watch/warning/emergency status</li> <li>2. County Homeland Security Advisory System risk level</li> <li>3. Amber-alert incident locations and areas</li> <li>4. Emergency management resource locator</li> <li>5. Real-time, or near real-time incident overlay requirements (e.g. weather data, health/medical emergency status data, utility outage/emergency areas disaster/major incident site locator, and disaster emergency response resource locator)</li> <li>6. Custom spatial application requirements (my current status, my emergency contacts, automated notification preferences)</li> <li>7. Transportation status (e.g. general traffic information and conditions, incident locations and related travel restriction, snow storm routes, and evacuation routes)</li> </ol> <p>C. Define Printed Map Requirements:</p> <ol style="list-style-type: none"> <li>1. Emergency management resource locator maps</li> <li>2. Planned snow storm and evacuation route maps</li> <li>3. Incident site/situation maps for media</li> </ol>	SEMA

**PREPAREDNESS – PUBLIC INFORMATION**

Preparedness includes detailed operation level planning and implementation tasks necessary to respond to support public information needs during a disaster emergency.

#	√	PREPAREDNESS TASK	RESOURCE
35	1-44	Use mitigation requirements to develop a Public Information Digital Map Publishing Plan	SEMA
36	1-45	Develop Public Information Digital Map Publishing portal with interactive web-based maps and applications	SEMA AI
37	1-45	Develop printed map product templates for use with ArcPublisher and ArcReader software	SEMA
38	1-45	Provide training for the Public Information Officer personnel to address the dissemination of digital and printed map information to the public	SEMA
39	1-49	Develop GIS Public Information support staff list to support Joint Information Center	SEMA

**RESPONSE – PUBLIC INFORMATION**

The response section includes the detailed incident level tasks necessary to respond to any disaster. For GIS this includes the creation of incident specific digital and printed map products to support the public information requirements.

#	√	RESPONSE TASK	RESOURCE
40	1-59	GIS Public Information representative sent to Joint Information Center (when activated)	SEMA
41	1-61	Maintain web page (Portal) for incident related updates	SEMA
42	1-63	If Federal Bureau of Investigation Joint Information Center is activated, send GIS Public Information support staff representative to its location	SEMA
43	1-64	Coordinate with the other Emergency Support Functions and Federal agencies to develop any special public information maps and data layers as needed	SEMA

## RECOVERY – PUBLIC INFORMATION

The recovery section includes the detailed incident level tasks necessary to recover from a disaster.

#	√	RECOVERY TASK	RESOURCE
44	1-65	Coordinate with appropriate agencies to terminate any incident related public information mapping efforts and deactivate any Joint Information Center(s)	SEMA

## IV. CEMP - OPERATIONS SECTION

The Operations section consists of elements for Communications and Warning, Information and Planning, and Resource Support.

### COMMUNICATIONS AND WARNING ELEMENT - GIS INTEGRATION POINTS

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agencies:** State Emergency Management Agency

This element provides GIS communication and interoperability through the CRMC to support local, state, and federal access to base map data with critical infrastructure, incident monitoring and response efforts. This includes communication with the Emergency Operations Center and Forward Response Team, The Military Department of Indiana (MDI), AccessIndiana (AI), local government GIS interoperability connection points, and Federal Response Plan support contacts.

### MITIGATION – COMMUNICATIONS AND WARNING

Mitigation actions includes tasks to test and finalize the architecture of the Information Technology (IT) communication network to support the CRMC.

#	√	MITIGATION TASK	RESOURCE
45	2-1	Test the primary and secondary IT communication architecture for CRMC GIS data server network	SEMA, Operations Division, ITOC IDEM, MDI, AccessIndiana (AI)
46	2-1	Test the primary and secondary IT communication architecture for CRMC GIS application users network (local, state, and federal)	SEMA, Operations Division, ITOC IDEM, MDI, AI
47	2-1	Test the CRMC GIS data interoperability specifications and model for ESRI GIS servers	ITOC MDI AI
48	2-1	Test the CRMC OGC data Interoperability Specifications and Model for Autodesk MapGuide GIS data	AI OGC Autodesk
49	2-1	Test the CRMC map request and distribution model	SEMA, Operations Division
50	2-3	Design and test the CRMC web-based interface model for non-GIS location information sources (e.g. TracSys – Emergency Messaging Tracking and Handling System database, and others)	SEMA, Operations Division, ITOC, MDI, AI

**PREPAREDNESS – COMMUNICATIONS AND WARNING**

Preparedness actions include tasks to develop and deploy the Information Technology (IT) communication network to support the CRMC.

#	√	PREPAREDNESS TASK	RESOURCE
51	2-4 & 2-7	Develop and deploy the primary and secondary IT communication architecture for CRMC GIS data server network	SEMA, Operations Division ITOC MDI AI
52	2-4 & 2-7	Develop and deploy the primary and secondary IT communication architecture for CRMC GIS application users network (local, state, and federal)	SEMA, Operations Division ITOC MDI AI
53	2-4 & 2-7	Develop and deploy the CRMC GIS data interoperability specifications and model for ESRI GIS servers	ITOC MDI AI
54	2-4 & 2-7	Develop and deploy the CRMC OGC data Interoperability Specifications and Model for Autodesk MapGuide GIS data	MDI AI OGC
55	2-4 & 2-7	Develop and deploy the CRMC web-based interface model for non-GIS location information sources from and CEMP (e.g. TracSys System database and others)	SEMA, Operations Division ITOC MDI AI
56	2-5	Geocode the SEMA telephone directory of all Indiana-based Emergency Support Function agencies, as well as other agencies that may be involved in an emergency situation, including directories for county and municipal points of contact	SEMA, Operations and Preparedness Divisions

**RESPONSE – COMMUNICATIONS AND WARNING**

Response actions include the tasks to support the GIS communication plan during a disaster emergency.

#	√	RESPONSE TASK	RESOURCE
57	2-9	Provide CRMC support to the EOC when activated	SEMA, Operations Division
58	2-10	Make notifications and test IT network with appropriate local, state, and federal Emergency Support Function resources.	SEMA, Operations Division



**FOR OFFICIAL USE ONLY**

#	√	RESPONSE TASK	RESOURCE
59	2-17	Establish and maintain GIS communications network links between Forward Response Team and the EOC, whether Forward Response Team is in Mobile Command Center or at remote sites with laptop computers, phones, etc.	SEMA, Operations Division

**RECOVERY – COMMUNICATIONS AND WARNING**

Recovery actions consist of returning the GIS communication network to normal.

#	√	RECOVERY TASK	RESOURCE
60	2-20	Coordinate return to normal operation of CRMC support of the EOC.	SEMA, Operations Division

## INFORMATION AND PLANNING ELEMENT - GIS INTEGRATION POINTS

Many of the GIS information and planning tasks are addressed in the General Task Element of this plan. The tasks in this element support SEMA's preparations to use CRMC resources to provide assistance to state and local resources, and to collect, analyze, process, and disseminate information about a potential or actual disaster or emergency.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agencies:** State Emergency Management Agency

### MITIGATION – INFORMATION AND PLANNING

Mitigation includes maintaining up-to-date procedures.

#	✓	MITIGATION TASK	RESOURCE
61	2-21	Insure EOC procedures are updated for using CRMC resources to support: <ul style="list-style-type: none"> <li>• Local request for assistance</li> <li>• Homeland Security Advisory System risk levels</li> </ul>	SEMA

### PREPAREDNESS – INFORMATION AND PLANNING

Preparedness actions include developing the information and planning map products.

#	✓	PREPAREDNESS TASK	RESOURCE
62	2-22	The CRMC develops and maintains detailed maps of jurisdictions, counties, municipalities, etc.	SEMA, Operations Division
63	2-24	The CRMC develops and maintains standardized map formats and contents for information and intelligence gathering and reporting for both specific incidents and the Homeland Security Advisory System	SEMA, Preparedness Division
64	2-25	The CRMC provides comprehensive mapping capability Geographical Information System (GIS) for use in the EOC and other locations	SEMA AI
65	2-26	Develop training program for CRMC Emergency Operations Center software, data, and procedures	SEMA, Operations Division

**RESPONSE – INFORMATION AND PLANNING**

Response actions include tasks to respond to specific emergency disasters incidents.

#	√	RESPONSE TASK	RESOURCE
66	2-27 & 2-32	CRMC applications to collect incident and response information, geocode, analyze, and disseminate as required	SEMA
67	2-28	Provide access to CRMC applications to appropriate state agencies	SEMA
68	2-30	Prepare status or situation maps on State activities and distribute, as required	SEMA
69	2-33	Coordinate with Emergency Support Function Public Information for upcoming events	SEMA
70	2-34	Coordinate with Emergency Support Function Resource Support for upcoming events	SEMA
71	2-35	Prepare and coordinate CRMC action plans for the next 12, 24 hours and 3-5 days	SEMA, Policy Group

**RECOVERY – INFORMATION AND PLANNING**

Recovery actions consist of returning the community to normal.

#	√	RECOVERY TASK	RESOURCE
72	2-36	Gather all GIS After Action Reports and compile into single report	SEMA

## RESOURCE SUPPORT ELEMENT - GIS INTEGRATION POINTS

Resource Support provides for tasks identified in the General Tasks Element to address the effort and activity necessary to evaluate, locate, contract, procure, and provide essential GIS resources.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agency:** State Emergency Management Agency

### MITIGATION – RESOURCE SUPPORT

Mitigation actions include GIS planning and assistance.

#	√	MITIGATION TASK	RESOURCE
73	2-37	Identify requirements to support GIS plans and procedures that are required for lead and support agencies	SEMA, Operations Division and Administrative Services
74	2-38	CRMC provides assistance to support agencies in developing their GIS plans and procedures	SEMA, Preparedness Division

### PREPAREDNESS – RESOURCE SUPPORT

Preparedness actions include identifying and contracting for assistance for GIS technology, data and services.

#	√	PREPAREDNESS TASK	RESOURCE
75	2-39	Develop GIS supplier contact database for hardware, software, data, and professional services	Department Of Administration SEMA ITOC
76	2-39	Develop GIS supplier disaster emergency support contracts for hardware, software, data, and professional services	Department Of Administration SEMA ITOC
77	2-40	Develop guidelines and procedures for activating GIS disaster emergency support contracts	SEMA, Operations Division Department Of Administration

**RESPONSE – RESOURCE SUPPORT**

Response actions include obtaining assistance for GIS technology, data and services.

#	√	RESPONSE TASK	RESOURCE
78	2-41	Contract or acquire GIS resources when requested by agency and approved by Executive Director SEMA or appointed representative	Department of Administration
79	2-42	Verify and prioritize GIS resource requests	SEMA, Operations Division
80	2-43	Contact GIS suppliers and alert them of special needs	Department of Administration
81	2-44	Notify and coordinate with local, state, and federal law enforcement and military any special GIS resource deployment plans (e.g. aerial photography missions)	SEMA, Operations Division MDI
82	2-45	Implement emergency purchasing procedures	Department of Administration SEMA, Administrative Services

**RECOVERY – RESOURCE SUPPORT**

Recovery actions consist of returning emergency resource to normal.

#	√	RECOVERY TASK	RESOURCE
83	2-51	Recall, inventory and account for all GIS resources used during incident	SEMA, Operations Division
84	2-54	Compile accurate accounting for all GIS resources acquired	Department of Administration

## V. CEMP - EMERGENCY SERVICES SECTION

The Emergency Services section consists of the Emergency Support Functions Fire Fighting, Health and Medical, Search and Rescue, Hazardous Material and Law Enforcement. These Emergency Support Functions directly support the first responders.

### FIRE FIGHTING ELEMENT - GIS INTEGRATION POINTS

Fire fighting Emergency Support Function detects and suppresses wild land, rural, and urban fires resulting from, or occurring coincidentally with, a major disaster or emergency requiring State assistance.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agency:** Department of Fire and Building Services

### MITIGATION – FIRE FIGHTING

Mitigation actions include identification of GIS resources to support fire prevention and fighting efforts related to a major disaster or emergency

#	√	MITIGATION TASK	RESOURCE
85	3-1	Identify GIS-based maps, data and applications to support emergency planning and response for: <ul style="list-style-type: none"> <li>• Publishing public information/education of fire hazard risk status for prevention and safety</li> <li>• Integrating building floor plans, site-plans, hydrant locations, and fire safety pre-plans</li> <li>• Public Health and Environmental threats pertaining to fire suppression runoff and smoke</li> </ul>	State Fire Marshal Department of Fire and Building Services



**PREPAREDNESS – FIRE FIGHTING**

Preparedness actions include design and development of GIS resources to support fire prevention and fighting efforts related to a major disaster or emergency.

#	√	PREPAREDNESS TASK	RESOURCE
86	3-3	Develop GIS-based maps, data and applications to support emergency planning and response for: <ul style="list-style-type: none"> <li>Publishing public information/education of fire hazard risk status for prevention and safety</li> <li><i>Integrating building floor plans, site-plans, hydrant locations, and fire safety pre-plans*</i></li> <li>Public Health and Environmental threats pertaining to fire suppression runoff and smoke</li> </ul>	State Fire Marshal Department of Fire and Building Services

**RESPONSE – FIRE FIGHTING**

Response actions include deployment of GIS map products to support first responders and support staff.

#	√	RESPONSE TASK	RESOURCE
87	3-5	Provide GIS-based based maps, data and applications to support emergency response as required	State Fire Marshal
88	3-8	Provide incident mapping, modeling and analysis to address Public Health and Environmental threats pertaining to fire suppression runoff and smoke	IDEM

**RECOVERY – FIRE FIGHTING**

Recovery actions consist of providing GIS maps to assist with reporting tasks.

#	√	RECOVERY TASK	RESOURCE
89	3-10	Provide GIS-based maps to record and analyze incident to aid local fire departments procedures for obtaining reimbursement from state or federal government	Fire Marshal SEMA Department of Administration

---

\* Long-term goal and objective

## HEALTH AND MEDICAL ELEMENT - GIS INTEGRATION POINTS

Health and Medical Emergency Support Function provides coordinated State assistance to supplement local resources in response to public health and medical care needs following a major disaster or emergency, or during a developing potential medical situation.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agency:** Indiana State Department of Health (ISDH)

### MITIGATION – HEALTH AND MEDICAL

Mitigation actions includes creating a GIS plan to assist medical support functions during an emergency.

#	√	MITIGATION TASK	RESOURCE
90	3-11 & 3-13	In conjunction with the Medication and Medical Supply Acquisition and Distribution Support Function, develop an ISDH GIS Implementation Plan with the CRMC	ISDH C-TASC SEMA ITOC

### PREPAREDNESS – HEALTH AND MEDICAL

Preparedness actions include GIS tasks to help health professionals maintain a state of readiness.

#	√	PREPAREDNESS TASK	RESOURCE
91	3-16	Map location and identification of specialized teams for response to specific hazards	ISDH
92	3-21	Map location of ISDH database records for all medical personnel within the State who are willing to accept emergency/disaster assignments as needed	ISDH

**RESPONSE – HEALTH AND MEDICAL**

Response actions include GIS tasks to locate health incidents and resources to respond.

#	√	RESPONSE TASK	RESOURCE
93	3-24	Geocode, store and map locations of current and historic health related incidents	ISDH SEMA Indiana State Police Local Health Department Local Emergency Management Agency
94	3-24	Map locations of treatment capabilities and bed space availability of hospitals, as needed	ISDH Indiana Hospital and Health Association
95	3-25 & 3-27	Map locations of on-hand local emergency medical services resources, capabilities, and special equipment	ISDH Local Health Department
96	3-26	Map location and identification of emergency laboratory resources	ISDH

**RECOVERY – HEALTH AND MEDICAL**

Recovery actions consist of GIS tasks to help determine if the community health is back to normal.

#	√	RECOVERY TASK	RESOURCE
97	3-33	<i>Provide GIS application to help track and analyze local/regional health cases and syndromic surveillance for increased disease related to the emergency/disaster*</i>	<i>ISDH Indiana Department of Environmental Health Indiana Department of Labor, Emergency Medical Services Commission</i>

---

\* Long-term goal and objective

## SEARCH AND RESCUE ELEMENT - GIS INTEGRATION POINTS

GIS resources for search and rescue provide paper and digital maps and locating technologies like GPS to support search and rescue teams and their coordination in cases of a major disaster or emergency.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agency:** State Emergency Management Agency

### MITIGATION – SEARCH AND RESCUE

Mitigation actions include tasks to identify, establish standards, and develop a plan for GIS resources to support search and rescue operations.

#	√	MITIGATION TASK	RESOURCE
98	3-36	Identify GIS, GPS and mobile (wireless) communication requirements to support search and rescue operations. <ul style="list-style-type: none"> <li>• Identify Search and Rescue map requirements</li> <li>• Identify mobile (wireless) GIS mapping and GPS location application requirements</li> <li>• Identify web-based location tracking for Search and Rescue Personnel and Grid/Site Search and Rescue applications</li> </ul>	Search and Rescue Academy
99	3-37	Identify GIS, GPS and mobile (wireless) communication equipment needs, sources, and potential funding sources	Search and Rescue Academy

### PREPAREDNESS – SEARCH AND RESCUE

Preparedness actions include tasks to develop, deploy and train search and rescue personnel in the use of GIS resources to support search and rescue operations.

#	√	PREPAREDNESS TASK	RESOURCE
100	3-38	Develop and coordinate GIS, GPS and wireless communication resources for Search and Rescue personnel. <ul style="list-style-type: none"> <li>• Develop and test templates for search and rescue map development</li> <li>• <i>Develop and test mobile (wireless) GIS mapping applications and GPS location applications*</i></li> <li>• <i>Develop and test web-based location tracking for Search and Rescue Personnel and Grid/Site Search and Rescue applications*</i></li> </ul>	Search and Rescue Academy

---

\* Long-term goal and objective

#	√	PREPAREDNESS TASK	RESOURCE
101	3-39	Train Search and Rescue Personnel on use of CRMC resources.	Search and Rescue Academy

**RESPONSE – SEARCH AND RESCUE**

Response actions include tasks to support search and rescue teams.

#	√	RESPONSE TASK	RESOURCE
102	3-40	The CRMC generates detailed site specific Search and Rescue Printed and Digital Maps.	SEMA, Operations Division
103	3-41	<i>The CRMC activates Search and Rescue Personnel location tracking and Grid/Site Search and Rescue tracking applications*</i>	<i>SEMA, Operations Division</i>

**RECOVERY – SEARCH AND RESCUE**

Recovery actions consist of returning resources and support to normal.

#	√	RECOVERY TASK	RESOURCE
104	3-43	CRMC supports search and recovery function as needed for additional rescue attempts.	SEMA, Search and Rescue Coordinator

---

\* *Long-term goal and objective*

## HAZARDOUS MATERIALS ELEMENT - GIS INTEGRATION POINTS

The CRMC support functions track the geographic location of known hazardous materials. The CRMC also provides GIS software and data to model the impact of actual or potential air, water, and ground discharge and/or release of hazardous materials.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agency:** Indiana Department of Environmental Management (IDEM)

### MITIGATION – HAZARDOUS MATERIALS

Mitigation actions include identification of hazardous materials locations and the GIS resources to support emergency planning, response and recovery efforts.

#	√	MITIGATION TASK	RESOURCE
105	3-45	Identify data sources to provide: <ul style="list-style-type: none"> <li>• Locations of known stored hazardous materials and types</li> <li>• Locations of known mobile (transported) hazardous materials and types</li> <li>• Base hydrological and geological data</li> <li>• Meteorological data</li> <li>• Location of critical infrastructure</li> <li>• Location of at-risk populations (schools, hospitals, nursing homes, etc.)</li> <li>• Location of sensitive environmental areas</li> </ul>	Fire Marshal IDEM SEMA
106	3-46	Identify GIS applications to model and respond effectively to a air, water, ground discharge/release of hazardous materials in a disaster emergency	Fire Marshal SEMA IDEM

### PREPAREDNESS – HAZARDOUS MATERIALS

Preparedness actions include the development, testing and modeling of GIS resources to support:

#	√	PREPAREDNESS TASK	RESOURCE
107	3-47	Develop GIS templates to support hazardous material mitigation, response and recovery efforts using identified applications and source data	Fire Marshal IDEM SEMA
108	3-47	<i>Develop web-based GIS mapping applications to track both hazardous material locations and incidents (historic &amp; active)*</i>	<i>Fire Marshal            IDEM            SEMA</i>

---

\* Long-term goal and objective

**RESPONSE – HAZARDOUS MATERIALS**

GIS response actions include tasks to respond to a discharge/release of hazardous materials.

#	√	RESPONSE TASK	RESOURCE
109	3-52	When EOC activated, the CRMC supports GIS incident modeling requests for environmental assessments, impact/evacuation areas determination, and assistance to help coordinate required and corrective actions	IDEM
110	3-53	Prepare printed and web-based maps of the incident and effected areas for appropriate Emergency Operations Center representatives for public release, as requested	IDEM Fire Marshal

**RECOVERY – HAZARDOUS MATERIALS**

Recovery actions consist of returning the community to normal.

#	√	RECOVERY TASK	RESOURCE
111	3-54	Prepare printed and web-based maps of the incident and effected area to help coordinate decontamination and other clean-up efforts, as requested	IDEM SEMA

## LAW ENFORCEMENT ELEMENT - GIS INTEGRATION POINTS

This element provides GIS-based mapping support for law enforcement assisting local government during a special event, and a major disaster or emergency.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agency:** Indiana State Police

### MITIGATION – LAW ENFORCEMENT

Mitigation actions include tasks to identify the GIS resources to support the specific law enforcement tasks.

#	√	MITIGATION TASK	RESOURCE
112	3-55	Identify the GIS-based resources and law enforcement data sources to support the unique planning requirements necessary for special events	All Agencies
113	n/a	In coordination with the Terrorism Consequence Management Element, identify the GIS-based resources and law enforcement data sources to support tracking of 911 incident and 311 service reports related to an emergency or special event	Indiana State Police

### PREPAREDNESS – LAW ENFORCEMENT

Preparedness actions include design and development of GIS resources to support planning, monitoring and response tasks.

#	√	PREPAREDNESS TASK	RESOURCE
114	3-56	Develop GIS data model and applications to support planning requirements necessary for special events.	All Agencies
115	3-57	Develop printed and digital maps to support public information and education programs for public safety, as requested	Indiana State Police DNR
116	n/a	<i>In conjunction with the Terrorism Consequence Management Element develop GIS applications to support tracking 911 incident and 311 service reports related to an emergency or special event*</i>	Indiana State Police

---

\* Long-term goal and objective



**RESPONSE – LAW ENFORCEMENT**

Response actions include GIS mapping tasks for law enforcement support of special events and response to emergencies.

#	√	RESPONSE TASK	RESOURCE
117	3-60	Provide GIS-based printed, digital, and event maps to help coordinate support for special events, as indicated in special event plans, as requested	Indiana State Police
118	3-61	Provide incident map access to help coordinate investigations by local law enforcement and the Indiana State Police, with the ability to expand access to include the Federal Bureau of Investigation, and Bureau of Alcohol, Tobacco, and Firearms, as requested	Indiana State Police
119	3-62	Provide incident/area map access to help coordinate activities relative to evacuation, as requested	Indiana State Police
120	3-63	Provide incident/area map access to help coordinate activities relative to traffic control, as requested	Indiana State Police
121	3-64	Provide incident/area map access to help coordinate requests pertaining to personnel and security, as requested	Indiana State Police
122	3-65	Provide incident/area map access to help coordinate quarantine areas, as requested	Indiana State Police
123	n/a	<i>In conjunction with the Terrorism Consequence Management Element provide incident/area map access to track 911 incident and 311 service reports related to the emergency or special event*</i>	<i>Indiana State Police</i>

**RECOVERY – LAW ENFORCEMENT**

Recovery actions consist of returning the community to normal.

#	√	RECOVERY TASK	RESOURCE
124	3-66	Provide incident/area map access to support law enforcement activities relative to traffic control and security for site re-entry	Indiana State Police

---

\* *Long-term goal and objective*

## VI. CEMP - HUMAN SUPPORT SECTION

The Human Support Section consists of the Emergency Support Functions for Shelter and Mass Care, Food and Water, Animal Health, and Donations and Volunteer Management. The corresponding GIS support functions are designed to support those agencies giving aid to victims of disasters and emergencies.

### SHELTER AND MASS CARE ELEMENT - GIS INTEGRATION POINTS

This element provides GIS resources to support local efforts to meet the mass care needs of victims of a disaster. Through the Crisis and Response Mapping Center, mapping applications and data are produced to support the delivery of mass care services of shelter, feeding, and emergency first aid to disaster victims; the establishment of emergency medical services to provide bulk distribution of emergency relief supplies to disaster victims; and the collection of information to operate a disaster.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agency:** State Emergency Management Agency (SEMA)

### MITIGATION – SHELTER AND MASS CARE

Mitigation actions include those that reduce the effects of a future disaster. Each of these Human Support Elements can have a significant impact on reducing these effects.

#	√	MITIGATION TASK	RESOURCE
125	4-1	In conjunction with the other elements in this section, the Basic Plan Support Function, and the Health and Medical Emergency Support Function, identify GIS resources to support both the tactical and public education programs for sheltering and mass care	SEMA American Red Cross

### PREPAREDNESS – SHELTER AND MASS CARE

Preparedness actions include GIS tasks to help develop and maintain a state of readiness.

#	√	PREPAREDNESS TASK	RESOURCE
126	4-2	In conjunction with the other elements, identify and map locations of all agencies and organizations involved during emergencies or disasters	SEMA, Operations Division Indiana State Board of Animal Health
127	4-3	Identify and map counties and/or regions covered by the American Red Cross and Salvation Army.	American Red Cross Salvation Army

**FOR OFFICIAL USE ONLY**

#	√	PREPAREDNESS TASK	RESOURCE
128	4-4	Identify and map established locations for feeding and sheltering	SEMA American Red Cross Salvation Army
129	4-5	Identify and map the deployment and storage locations of emergency response vehicles designated for use in case of emergency	Emergency Medical Services
130	4-5	<i>Design and develop a GIS-based Automated Vehicle Location (AVL) system for locating, tracking, and dispatching emergency response vehicles designated for use in case of emergency*</i>	<i>Emergency Medical Services</i>
131	4-6	Provide the Public Information Element with printed and digital map information relating to public shelters and mass care facilities	SEMA, Operations Division

**RESPONSE – SHELTER AND MASS CARE**

Response actions include the GIS tasks to support emergency management personnel responsible for shelter and mass care efforts.

#	√	RESPONSE TASK	RESOURCE
132	4-10	Assist in establishing alternative health care facilities staffed by health care professionals, as needed	American Red Cross
133	4-12	Support location of special needs sheltering options as needed	American Red Cross local institution/agency
134	4-13	Support coordination with Emergency Support Function Public Information, to disseminate printed and digital maps of locations of shelters and mass care facilities to the public	American Red Cross

**RECOVERY – SHELTER AND MASS CARE**

Recovery actions consist of returning the community to normal.

#	√	RECOVERY TASK	RESOURCE
135	4-17	Assist with location of short-term and temporary housing	American Red Cross

---

\* Long-term goal and objective

## FOOD AND WATER ELEMENT - GIS INTEGRATION POINTS

Food and Water Emergency Support Function identifies, secures, and arranges for the transportation of food assistance to affected areas following a major disaster or emergency or other event.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agency:** State Emergency Management Agency

### MITIGATION –FOOD AND WATER

Mitigation actions include GIS mapping support to identify the location of necessary resources.

#	√	MITIGATION TASK	RESOURCE
136	4-19	Map location and identify facilities that can provide for food/water/ice storage, staging and/or distribution	SEMA American Red Cross Salvation Army Resource Support Emergency Support Function
137	4-20	Map location and identify individual volunteers and volunteer groups/organizations that can support this Emergency Support Function	Indiana Volunteer Organizations Active in Disasters American Red Cross Salvation Army
138	4-22	Map location and identify facilities that could be used for cooking and serving hot meals to emergency workers and others	SEMA Emergency Support Function Resource Management Family Social Services Administration Dept of Education
139	4-24	Support the coordination with Transportation Emergency Support Function to map locations and identify transportation assets necessary for the transport of food/water/ice	Transportation Emergency Support Function Indiana Volunteer Organizations Active in Disasters Resource Management Emergency Support Function Indiana State Board of Animal Health

**PREPAREDNESS – FOOD AND WATER**

Preparedness actions include the design and standards for the development of maps.

#	√	PREPAREDNESS TASK	RESOURCE
140	4-28	Support coordination with Emergency Support Function Public Information, to disseminate printed and digital maps of locations of feeding and distribution facilities	American Red Cross Salvation Army
141	4-31	Support coordination with Transportation Emergency Support Function to provide printed and digital maps for transportation of food/water/ice and other supplies to shelters and feeding sites/facilities.	Salvation Army
142	4-32	Support coordination with Law Enforcement Emergency Support Function to provide printed and digital maps to support security during transport and storage of food/water/ice and other supplies	SEMA Indiana State Police

**RESPONSE – FOOD AND WATER**

Response actions include providing incident specific printed and digital maps to help coordinate emergency activities.

#	√	RESPONSE TASK	RESOURCE
143	4-36	Provide printed and digital maps to coordinate security with Law Enforcement Emergency Support Function for feeding locations, warehouses and distribution locations	Indiana State Police SEMA
144	4-37	Provide printed and digital maps for public information regarding the locations of public feeding and water/ice distribution sites	Public Information Emergency Support Function
145	4-38	Coordinate with Transportation Emergency Support Function to provide printed and digital maps for transportation of food/water/ice and other supplies to shelters and feeding sites/facilities	American Red Cross Salvation Army Dept of Transportation

**RECOVERY – FOOD AND WATER**

Recovery actions consist of returning the community to normal.

√	√	<b>RECOVERY TASK</b>	<b>RESOURCE</b>
146	4-41	Provide printed and digital maps to document facilities used for food/water/ice storage, staging and/or distribution.	American Red Cross Salvation Army
147	4-42	Provide printed and digital maps to document facilities used for cooking and serving hot meals to emergency workers and others	American Red Cross Salvation Army

## ANIMAL HEALTH AND CARE ELEMENT - GIS INTEGRATION POINTS

Animal Health and Care Emergency Support Function coordinates State assistance and activities involving a response to an animal health or care emergency or disaster. GIS data and technology can provide significant support for:

- **Animal Health** activities include but are not limited to detection, quarantine, eradication, disposal, cleaning, and disinfecting.
- **Animal Care** activities include but not limited to rescue, triage, treatment, identification, reunification, and shelter.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agency:** Indiana Board of Animal Health/State Veterinarian

### MITIGATION - ANIMAL HEALTH

#	√	MITIGATION TASKS	RESOURCE
148	4-43	Design a GIS application to help monitor animal health and maintain an extensive surveillance system	Board of Animal Health Veterinarians and other animal health professionals United States Department of Agriculture (USDA)
149	4-45	Map location and identify targeted audiences for educational materials aimed at recognizing, reporting, and preventing an animal disease outbreak such as zoos, local producers, slaughter houses, and auction markets	State Veterinarian/Board of Animal Health Purdue Extension Service USDA Office of Commissioner of Agriculture

### MITIGATION - ANIMAL CARE

#	√	MITIGATION TASKS	RESOURCE
150	4-46	Map location and identify animal populations of various species	State Veterinarian/Board of Animal Health Purdue Extension Service Indiana Animal Care and Control Association DNR USDA
151	4-48	Map location and identify facilities that can provide carcass disposal	State Veterinarian/Board of Animal Health DNR IDEM SEMA

**PREPAREDNESS - ANIMAL HEALTH**

#	√	PREPAREDNESS TASK	RESOURCE
152	4-49	Provide GIS resources to help develop and maintain an Animal Health and Care Emergency Management Response Plan to an animal disease outbreak.	State Veterinarian/Board of Animal Health USDA SEMA
153	4-50	Design and develop GIS applications to support establishing an in-state capability to respond on-site to detect, control, and eradicate animal diseases	State Veterinarian/Board of Animal Health USDA
154	4-51	Identify and map locations of USDA certified Foreign Animal Disease Diagnosticians and other qualified team members	State Veterinarian/Board of Animal Health USDA Indiana Veterinarian Medical Association Animal Disease Diagnostic Laboratory
155	4-52	Identify and map locations of personnel to establish an Animal Health Field Response Team capability for large-scale outbreaks	State Veterinarian/Board of Animal Health USDA Purdue Extension Service DNR Indiana Veterinarian Medical Association

**PREPAREDNESS - ANIMAL CARE**

#	√	PREPAREDNESS TASK	RESOURCE
156	4-56	Designate and map locations of potential animal burial sites	DNR Board of Animal Health IDEM
157	4-58	Identify and map locations for the sheltering and health care of animals (county fair grounds, football fields, etc.)	State Veterinarian/Board of Animal Health Purdue Extension Service
158	4-63	Designate and map locations of potential animal carcass disposal sites	State Veterinarian/Board of Animal Health DNR IDEM SEMA



**RESPONSE - ANIMAL HEALTH AND CARE**

#	√	<b>RESPONSE TASKS – OUT-OF-STATE CASE</b>	<b>RESOURCE</b>
159	4-64	GIS analysis and maps to help support implementation of bio-security procedures for all state agencies	IDEM Indiana State Board of Animal Health
160	4-65	GIS analysis to help support conducting trace-backs and epidemiological investigations regarding recent imports of animals or animal products into Indiana	State Veterinarian/Board of Animal Health
161	4-66	Identify and map locations to establish and maintain border inspection activities involving incoming commercial vehicles	Law Enforcement Emergency Support Function State Veterinarian/Board of Animal Health DNR
#	√	<b>PRESUMPTIVE POSITIVE CASE, IN-STATE TASKS</b>	<b>RESOURCE</b>
162	4-68	GIS analysis to help support conducting trace-backs and epidemiological investigations regarding recent imports of animals or animal products into Indiana	State Veterinarian/Board of Animal Health USDA
163	4-69	Identify and map locations of ongoing and new border inspection activities involving incoming and outgoing commercial vehicles	Law Enforcement Emergency Support Function State Veterinarian/Board of Animal Health DNR
164	4-70	Web-based maps to support public education program regarding on-going animal health emergency operations and issues	State Veterinarian/Board of Animal Health Producers' Associations Indiana Veterinarian Medical Association DNR Purdue Extension Service Office of Commissioner of Agriculture Public Information Emergency Support Function

**RESPONSE - ANIMAL HEALTH**

#	✓	<b>PRESUMPTIVE POSITIVE CASE, IN-STATE TASKS</b>	<b>RESOURCE</b>
165	4-71	GIS information and maps to support a request for a Secretary of Agriculture Emergency or Extraordinary Declaration as appropriate	Governor's Office State Veterinarian/Board of Animal Health SEMA
166	4-72	GIS information and maps to support a request for a Presidential Declaration in order to implement the Federal Response Plan	Governor's Office
167	4-73	GIS analysis and maps to help establish and deploy when needed an Animal Health and Care Field Response Team to identify, contain, and eradicate the disease in each infected area	State Veterinarian/Board of Animal Health DNR Purdue Extension Service
168	4-74	GIS analysis and maps to help establish and communicate the location control zones around the infected premise(s)	Indiana State Police DNR SEMA Board of Animal Health MDI
169	4-75	GIS analysis and maps to help initiate steps to quarantine the infected area and contain the spread of the disease	Indiana State Police DNR USDA SEMA IDEM MDI Indiana State Board of Animal Health
170	4-76	Map locations of field surveys of susceptible wildlife populations in quarantine areas and surrounding territory and determine the incidence of foreign animal disease in those populations	DNR Board of Animal Health
171	4-77	GIS analysis and maps to help implement measures to prevent the movement of susceptible and carrier wildlife from quarantine areas	DNR Board of Animal Health
172	4-79	Map locations of regional surveillance/case reports coming from field veterinarians, extension educators, industry partners and public awareness campaigns	State Veterinary/Board of Animal Health USDA Indiana Veterinarian Medical Association Purdue Extension Service Commodity Groups

#	✓	<b>PRESUMPTIVE POSITIVE CASE, IN-STATE TASKS</b>	<b>RESOURCE</b>
173	4-80	GIS analysis and maps to help trace all herds and individual animals that have potentially been in contact with infected animals or premises. Identify, isolate, quarantine and order testing.	State Veterinarian/Board of Animal Health USDA
174	4-82	GIS analysis and maps to help determine to what extent wild animals may be a risk factor and take steps to stop the spread of the disease	DNR State Veterinarian/Board of Animal Health
175	4-83	Map location and support information to deploy outbreak Inspection and Eradication Teams	USDA-AVIC State Veterinarian/Board of Animal Health
176	4-84	GIS support to staff at Animal Health Joint Information Center	Selected Agencies
177	4-85	Printed and digital maps to for the public and the media as needed	Public Information Emergency Support Function Joint Information Center
178	4-87	Support hotline staff with printed and digital maps for responding to public inquiries	Public Information Emergency Support Function Joint Information Center
179	4-88	The CRMC Mobile Response Teams coordinates with local fire departments and hazardous materials teams to identify, map, and update locations of checkpoints requiring cleaning and disinfecting procedures	State Fire Marshall SEMA IDEM
180	4-90	GIS analysis and maps to help conduct coordinated livestock appraisal process prior to depopulation	Foreign Animal Disease Diagnostician to Indiana State Board of Animal Health USDA- Area Veterinarian in Charge (USDA-AVIC) USDA- Animal and Plant Health Inspection Service and Veterinary Services
181	4-91	GIS analysis and maps to help coordinate with appropriate state and federal regulatory agencies to address disposal issues, including possible environmental restriction variance to allow for appropriate disposal and burial of livestock carcasses	DNR IDEM EPA Indiana State Board of Animal Health
182	4-92	GIS analysis and maps to help conduct appraisal and indemnification determination process	Board of Animal Health USDA Private Contractors

**FOR OFFICIAL USE ONLY**

<b>#</b>	<b>√</b>	<b>PRESUMPTIVE POSITIVE CASE, IN-STATE TASKS</b>	<b>RESOURCE</b>
183	4-93	Provide maps to help conduct depopulation procedures	Board of Animal Health SEMA IDEM USDA Private contractors
184	4-94	Provide GIS analysis and maps to help conduct disposal process of animal carcasses and other contaminated materials utilizing qualified resources including public works and transportation personnel and equipment	Indiana State Board of Animal Health USDA-AVIC INDOT MDI IDEM Private contractors
185	4-95	Provide maps to locate and implement cleaning and disinfecting procedures in coordination with local officials and personnel	State Veterinarian/Board of Animal Health USDA-AVIC State Fire Marshal MDI IDEM
186	4-96	Provide GIS analysis and maps to help evaluate conditions and consider continuation or removal of quarantine as conditions warrant	Foreign Animal Disease Diagnostician Board of Animal Health

**RESPONSE - ANIMAL CARE**

<b>#</b>	<b>√</b>	<b>RESPONSE TASKS</b>	<b>RESOURCE</b>
187	4-97	Provide GIS analysis to help perform damage assessment of affected site	Board of Animal Health SEMA
188	4-98	Identify veterinary emergency personnel to activate based on incident and location	Board of Animal Health
189	4-99	Provide maps to help coordinate rescue, transport, shelter, identification, triage and treatment of animals	Board of Animal Health Indiana Veterinary Medical Association
190	4-100	Help identify location of resources to procure use of facilities, equipment, and supplies	Board of Animal Health Resource Support Emergency Support Function Purdue Extension Service SEMA Indiana Animal Care and Control Association

**RECOVERY - ANIMAL HEALTH**

#	√	RECOVERY TASKS	RESOURCE
191	4-103	Provide GIS incident data to help coordinate with USDA to determine conditions for repopulating	State Veterinarian/Board of Animal Health USDA-AVIC
192	4-104	Provide GIS incident data to help coordinate with FEMA in order to facilitate appropriate federal disaster assistance in accordance with the Federal Response Plan	SEMA Governor's Office Indiana State Board of Animal Health
193	4-106	Provide GIS incident data and analysis to help assess long term effects on environment	IDEM
194	4-107	Provide GIS incident data to assist in identification and location of displaced animals	Indiana State Board of Animal Health Indiana Animal Care and Control Association Purdue Extension Service

**RECOVERY - ANIMAL CARE**

#	√	RECOVERY TASKS	RESOURCE
195	4-108	Provide maps to help support return of animals to owner/farmer	Indiana State Board of Animal Health Indiana Animal Care and Control Association Purdue Extension Service
196	4-109	Provide maps to help support re-establish livestock markets/operations	Indiana State Board of Animal Health Purdue Extension Service
197	4-110	Provide support if needed to locate and map abandoned animals	Indiana State Board of Animal Health Indiana Animal Care and Control Association Purdue Extension Service Indiana Veterinary Medical Association

## **DONATION/VOLUNTEER MANAGEMENT ELEMENT - GIS INTEGRATION POINTS**

Donation and Volunteer Management Emergency Support Function identifies, secures, and arranges for transportation of donations and the management of volunteers both emergent and rostered.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agency:** State Emergency Management Agency

### **MITIGATION – DONATION/VOLUNTEER MANAGEMENT**

Mitigation actions include mapping locations of available resources.

#	√	MITIGATION TASK	RESOURCE
198	4-111	Map location and identify facilities that can be used for storage and distribution for donated goods	SEMA
199	4-113	Map location and identify private sector organizations that could provide resources, supplies and/or manpower	SEMA
200	4-115	Map location and identify facilities that can provide for donation storage, staging and/or distribution	SEMA
201	4-116	Map location and identify individual volunteers and volunteer groups/organizations	SEMA
202	4-118	Support the coordination with Transportation Emergency Support Function to map locations and identify transportation assets that may be necessary for the transport of donated goods	SEMA

### **PREPAREDNESS – DONATION/VOLUNTEER MANAGEMENT**

Preparedness actions include mapping locations of resources.

#	√	PREPAREDNESS TASK	RESOURCE
203	4-119	Map location of resources on the rostered list of emergency volunteers	All Agencies
204	4-120	Map location and identify cooperative extensions to provide additional resources where necessary	American Red Cross

**RESPONSE – DONATION/VOLUNTEER MANAGEMENT**

Response actions include the use of GIS to help identify resources to be used in an emergency.

#	√	RESPONSE TASK	RESOURCE
205	4-123	Help locate and identify the rostered volunteers needed for deployment	SEMA
206	4-126	Help locate and identify the private sector organizations, where necessary, to provide resources, supplies and manpower	SEMA Department of Administration

**RECOVERY – DONATION/VOLUNTEER MANAGEMENT**

Recovery actions consist of returning the community to normal.

#	√	RECOVERY TASK	RESOURCE
207	4-128	Provide printed and digital maps to help document private sector organizations that provided resources, supplies and/or manpower for the event	American Red Cross
208	4-129	Provide printed and digital maps to help document volunteer activity	American Red Cross Indiana Volunteer Organizations Active in Disasters

## VII. CEMP - INFRASTRUCTURE SUPPORT SECTION

The Infrastructure Support Section consists of the Emergency Support Functions for Transportation, Public Works and Engineering, Energy, and Damage Assessment.

### TRANSPORTATION ELEMENT - GIS INTEGRATION POINTS

The transportation element provides GIS resources to assist in the planning, use and monitoring of emergency transportation capacity in a major disaster or emergency.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agency:** Indiana Department of Transportation (INDOT)

### MITIGATION - TRANSPORTATION

Mitigation actions include planning activities using GIS data and tools to help identify and map emergency transportation routes, support resources, and status information.

#	√	MITIGATION TASK	RESOURCE
209	5-1	Identify resources and plan to provide GIS-based support for: <ul style="list-style-type: none"> <li>• Critical transportation routes (road, rail, air, water) at a state, county, city, and specific critical infrastructure site levels</li> <li>• Location of transportation resources (vehicles, fuel, parking, shelter, etc.) to support emergency transportation supply efforts</li> <li>• Real-time or Near Real-time Traffic information system of critical transportation routes</li> </ul>	Indiana State Police SEMA

### PREPAREDNESS - TRANSPORTATION

Preparedness actions include the design and development of the GIS resources to support emergency transportation support functions.

#	√	PREPAREDNESS TASK	RESOURCE
210	5-3	Analyze critical transportation support routes based on state and federal transportation regulations	Indiana State Police Indiana Port Commission
211	5-3	<i>Develop and test critical transportation route real-time/near real-time traffic information system to support emergency support functions*</i>	<i>Indiana State Police Indiana Port Commission</i>
212	5-4	Develop printed and web-based transport route (road, rail, air, water), resource and status maps to support emergency transportation efforts	Indiana State Police

---

\* Long-term goal and objective



**RESPONSE - TRANSPORTATION**

Response actions include incident level tasks to support specific transportation mapping needs.

#	√	RESPONSE TASK	RESOURCE
213	5-5	Support Transportation, Law Enforcement, and Public Works Emergency Support Functions to map locations of emergency barricades, controlling traffic, etc., as needed	Indiana State Police INDOT SEMA
214	5-7 - 5-10, & 5-13	Support incident level mapping and analysis of transportation assets in case of critical infrastructure site evacuations, as needed	Indiana State Police INDOT SEMA

**RECOVERY - TRANSPORTATION**

Recovery actions consist of returning the community to normal.

#	√	RECOVERY TASK	RESOURCE
215	5-14	Support Law Enforcement with maps and incident recovery status maps to assist local authorities in establishing checkpoints for re-entry to evacuated areas	Indiana State Police

## PUBLIC WORKS AND ENGINEERING ELEMENT - GIS INTEGRATION POINTS

These tasks provide GIS mapping support to the emergency response personnel providing technical advice and evaluation, engineering services, contracting for construction management and inspection, contracting for the emergency repair of water and wastewater treatment facilities, emergency power, and real estate support to assist the local government.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agency:** Department of Administration

### MITIGATION – PUBLIC WORKS AND ENGINEERING

Mitigation actions include using GIS to support existing plan elements and new GIS tasks to support public works and engineering tasks for GASB-32, and Presidential Directives for critical infrastructure protection.

#	√	MITIGATION TASK	RESOURCE
216	5-16	Map, geocode and warehouse annual inspecting data for public levees and dams throughout the state	DNR
217	5-17	Map, geocode and warehouse annual inspecting data for bridges throughout the state	INDOT
218	n/a	<p><i>In conjunction with the Terrorism Consequence Management Element identify an integrated GIS-based GASB-34 asset management and EPA critical infrastructure protection plan and template for use by local government - public works utilities (water, sanitary sewer, storm sewer):</i></p> <ul style="list-style-type: none"> <li>• <i>Identify Indiana's public works utility collection/distribution service territories and providers (non-regulated, municipal, and private)</i></li> <li>• <i>Identify an integrated GIS/EPA Critical Infrastructure Protection Plan for Water and Sewer in Indiana. (e.g. AWWA – WaterISAC)</i></li> <li>• <i>Identify an integrated GASB-34 asset inventory and management GIS data model*</i></li> </ul>	<p><i>IDEM Department of Commerce Indiana Utilities Regulatory Commission (IURC) Department of Administration</i></p>

---

\* Long-term goal and objective

**PREPAREDNESS – PUBLIC WORKS AND ENGINEERING**

Preparedness includes developing and maintaining the digital map data for use and distribution during an emergency.

#	√	PREPAREDNESS TASK	RESOURCE
218	5-18	Map emergency fuel resource locations and information for use in an emergency	SEMA
219	5-18	Develop GIS data distribution media containing both framework, infrastructure, and detailed engineering level data to support engineering and public works resources (Web Portal, FTP Site, and CD-ROM/DVD)	SEMA
220	n/a	<p><i>In conjunction with the Terrorism Consequence Management Element Develop an integrated GIS-based GASB-34 asset management and EPA critical infrastructure protection plan and template for use by local government - public works utilities (water, sanitary sewer, storm sewer):</i></p> <ul style="list-style-type: none"> <li>• <i>Map Indiana's public works utility collection/distribution service territories and providers (non-regulated, municipal, and private)</i></li> <li>• <i>Develop an integrated GIS data model and application for EPA Critical Infrastructure Protection Planning for Water and Sewer in Indiana. (e.g. AWWA – WaterISAC)</i></li> <li>• <i>Develop a integrated GASB-34 asset inventory and management GIS data model and applications**</i></li> </ul>	<p><i>IDEM Department of Commerce IURC Department of Administration</i></p>

**RESPONSE – PUBLIC WORKS AND ENGINEERING**

Response actions include producing maps and updating status data to support emergency support functions.

#	√	RESPONSE TASK	RESOURCE
221	5-24	Provide GIS-based tracking of the inspection and status of levees, dams, and bridge status during an emergency, as needed	DNR Indiana Utility Regulatory Commission (IURC)

---

\* Long-term goal and objective

**FOR OFFICIAL USE ONLY**

#	√	RESPONSE TASK	RESOURCE
222	5-27 & 5-28	Provide GIS-based maps to support inspection and cleanup efforts - including status tracking of road, bridge, building, tree clearing, etc., and debris removal information, as needed and as provided	INDOT DNR SEMA, Damage Assessment Emergency Support Function US Army Corps of Engineers (USCOE)

**RECOVERY – PUBLIC WORKS AND ENGINEERING**

Recovery actions consist of returning the community to normal.

#	√	RECOVERY TASK	RESOURCE
223	5-31 - 5-33	After the disaster, continue to provide GIS-based maps to support final inspection and cleanup efforts, status tracking of road/bridge, building, tree clearing, etc., and debris removal information, as needed and as provided	INDOT DNR SEMA, Damage Assessment Emergency Support Function US Army Corps of Engineers (USCOE)

## ENERGY ELEMENT - GIS INTEGRATION POINTS

Energy Emergency Support Function assists in restoring Indiana's energy system following a major disaster.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agency:** Indiana Utility Regulatory Commission (IURC)

### MITIGATION - ENERGY

Mitigation actions includes identification and planning tasks for GIS support of energy systems.

#	√	MITIGATION TASK	RESOURCE
224	5-36	<p>Identify energy supply information and develop a GIS support plan for Indiana:</p> <ul style="list-style-type: none"> <li>• Identify Indiana's energy generation, refineries, terminals, bulk fuel/energy storage and transmission facilities and providers (inside, outside, and passing through the state border).</li> <li>• Identify energy distribution service territories and providers (non-regulated, municipal, and rural electric municipal cooperatives)</li> <li>• Identify telecommunication networks service territories and providers (wired and cellular)</li> <li>• Identify Energy Critical Infrastructure Protection responsibilities (Information Sharing and Analysis Centers (ISACs) for electric, gas, and communications) for Indiana</li> </ul>	SEMA Department of Commerce IURC

**PREPAREDNESS - ENERGY**

Preparedness includes tasks to develop and maintain GIS solutions to support energy systems.

#	√	PREPAREDNESS TASK	RESOURCE
225	5-39 - 5-43	Develop and maintain energy supply information GIS for Indiana: <ul style="list-style-type: none"> <li>• Map Indiana's energy generation, refineries, terminals, bulk fuel/energy storage and transmission facilities and providers (inside, outside, and passing through the state border).</li> <li>• Map energy distribution service territories and providers (non-regulated, municipal, and rural electric municipal cooperatives)</li> <li>• Map telecommunication networks service territories and providers (wired and cellular)</li> <li>• <i>Integrate Energy Critical Infrastructure Protection information and incident data (ISACs for electric and gas)*</i></li> </ul>	SEMA Department of Commerce IURC
226	5-44	<i>With the Terrorism Consequence Management Energy Element, develop an energy service monitoring system to facilitate detection and reporting of energy service disruptions. At a minimum for this element, develop GIS procedures for energy providers to notify SEMA, provide the CRMC with energy service disruption graphics, and attribute data (ESRI Shapefiles of outage areas with the number of customers effected)*</i>	<i>Individual Utilities Energy ISAC</i>

**RESPONSE - ENERGY**

Response actions include mapping tasks to support Indiana's energy system.

#	√	RESPONSE TASK	RESOURCE
227	5-45	Map updates of how energy situation impacts Indiana. Use GIS data and applications to help assess scope, magnitude, and extent of energy impact.	SEMA IURC Department of Commerce
228	5-46	Map disruptions in the communications system, coordinate with Communications Emergency Support Function, to help establish backup communication system as required	SEMA IURC Individual Utilities

---

\* Long-term goal and objective

**FOR OFFICIAL USE ONLY**

#	√	RESPONSE TASK	RESOURCE
229	5-48	<i>Integrate infrastructure and incident map layers to help prioritize the re-establishment of energy to affected areas, based on emergency response and hazard mitigation needs*</i>	<i>Utilities' Emergency Operating Plans</i>
230	5-49	Provide maps to communicate incident related energy supply, demand and conservation information, as needed	Department of Commerce
231	5-50	Communicate energy situations through web-based maps with officials in other regions and states	SEMA IURC Department of Commerce

**RECOVERY - ENERGY**

Recovery actions consist of returning Indiana's energy system to normal.

#	√	RECOVERY TASK	RESOURCE
232	5-53	Map updates of energy situation impacts to Indiana with updates of energy restoration in affected area(s)	Individual Utilities

---

\* *Long-term goal and objective*

## DAMAGE ASSESSMENT ELEMENT - GIS INTEGRATION POINTS

Traditional damage assessment tasks provide assistance during the recovery phase of an incident. SEMA collects the damage assessment information. GIS-based mapping tasks support these efforts to more quickly and efficiently determine the magnitude and scope of the incident.

Additionally, GIS-based damage assessment programs are currently used by SEMA to model and help predict the magnitude and scope of natural disasters (earthquakes, winds, fire and flood) and man-made disasters (explosions and release of chemicals and hazardous materials).

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

**Support Agency:** State Emergency Management Agency

### MITIGATION – DAMAGE ASSESSMENT

Mitigation actions include tasks to identify GIS damage assessment support and modeling tools.

#	√	MITIGATION TASK	RESOURCE
233	5-54	Identify areas where GIS-based mapping can support efforts to more quickly and efficiently determine the magnitude and scope of an incident to expedite state and federal reimbursement procedures	SEMA
234	n/a	In coordination with the Terrorism Consequence Management Element, identify natural and man-made disaster GIS-based modeling applications and data to support damage assessment and mitigation	SEMA

### PREPAREDNESS – DAMAGE ASSESSMENT

Preparedness actions include design and development of GIS support for damage assessment and modeling.

#	√	PREPAREDNESS TASK	RESOURCE
235	5-57	CRMC to train all damage assessment team members in properly using GIS maps, resources and tasks	SEMA
236	5-59	Prepare GIS-based US Census Bureau economic information to support assessment tasks	Department of Commerce
237	n/a	In coordination with the Terrorism Consequence Management Element, design and develop natural and man-made disaster modeling applications and data to support GIS-based damage assessment and mitigation	SEMA



**RESPONSE – DAMAGE ASSESSMENT**

Response actions include mapping results of damage assessment tasks.

#	√	RESPONSE TASK	RESOURCE
238	5-61 & 5-63	Prepare damage assessment maps to support assessment efforts	SEMA
239	5-63	Provide incident-specific GIS modeling support, as needed	SEMA

**RECOVERY – DAMAGE ASSESSMENT**

Recovery actions consist of returning the community to normal.

#	√	RECOVERY TASK	RESOURCE
240	5-66	Prepare damage assessment summary maps to help coordinate with insurance companies of affected individuals, businesses, municipalities, etc.	SEMA
241	5-67	Perform GIS analysis using damage assessment maps and US Census Bureau data to help preparation of Economic Impact Study of affected areas	Department of Commerce All agencies
242	5-68	Advise individuals, businesses, municipalities, etc., as to the repairs and restorative efforts that are likely to be necessary	SEMA Department of Labor

## VIII. CEMP - HAZARDS SPECIFIC PLAN SECTION

This section contains specific information on emergency or disaster planning elements created by C-TASC for Terrorism Consequence Management.

### INTRODUCTION

SEMA's Hazard Specific plans also include standalone plans for "Radiological Emergency Preparedness" and "Chemical Stockpile Emergency Preparedness". These standalone plans are managed by SEMA's Technical Hazards Division. Both of these plans are tightly integrated with Federal Agencies and Department of Defense procedures and resources to help protect the United States and Indiana against accidental, war-time, or terrorist-caused incidents. Element specific GIS resources (e.g. D2PC) are provided to SEMA by the Federal government on a restricted use basis. These GIS resources are already in use within SEMA.

For further information:

- Point of contact for the Radiological Emergency Preparedness Plan (REPP):  
*Joe Bell (233-4480) SEMA Technical Hazards Division*
- Point of contact for the Chemical Stockpile Emergency Preparedness Plan (CSEPP):  
*Rich Card (232-4681) SEMA Technical Hazards Division*

## **TERRORISM CONSEQUENCE MANAGEMENT ELEMENT**

This element of the Indiana CEMP addresses the specialized emergency response operations and supporting efforts needed by Indiana in the event of a known, suspected or threatened terrorist incident occurring within its borders. The GIS tasks in this element are designed to support both the Threat Conditions level of the Homeland Security Advisory System, and to supplement the GIS tasks in each CEMP element.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

### **Support Agencies:**

- ❑ All Supporting Agencies (as originally identified in the CEMP or an Annex)

## **THREAT CONDITIONS AND ASSOCIATED PROTECTIVE MEASURES**

The following Threat Conditions each represent an increasing risk of terrorist attacks. Beneath each condition are a list of additional protective measures that the CRMC should take at that escalated level.

### ***LOW CONDITION (GREEN)***

This condition is declared when there is a low risk of terrorist attacks.

1. Identify and prepare/maintain GIS plans, data and applications to support the CEMP.
2. Educate, train, and conduct tabletop and field exercises of GIS solutions as appropriate.
3. Establish monitoring, assessment and mitigation of CIPP facilities for vulnerability to terrorist attacks.

### ***GUARDED CONDITION (BLUE)***

This condition is declared when there is a general risk of terrorist attacks.

4. Regularly check CRMC communications infrastructure and GIS data/application servers with designated emergency response or command locations.
5. Review and update all CEMP GIS procedures.
6. Review and regularly update the public information web-mapping applications and data to disseminate information to the public and media to strengthen their ability to act appropriately.

### ***ELEVATED CONDITION (YELLOW)***

An Elevated Condition is declared when there is a significant risk of terrorist attacks.

7. Increase monitoring, assessment and mitigation of CIPP facilities for vulnerability to terrorist attacks.
8. Coordinate MOU and emergency plans as appropriate with other jurisdictions.
9. Assess whether the precise characteristics of the threat require the further refinement of preplanned protective measures.
10. Implement, as appropriate, contingency and emergency response plans.

### ***HIGH CONDITION (ORANGE)***

A High Condition is declared when there is a high risk of terrorist attacks.

11. Coordinate necessary GIS resources and efforts to confirm CRMC support network for state, local, and federal government.
12. CRMC supports additional planning and precautions necessary for public events as requested.
13. Prepare for CRMC and EOC contingency procedures, such as moving to an alternate site, or disruption of reliable Internet access to one or all of the distributed GIS data and application servers.

### ***SEVERE CONDITION (RED)***

A Severe Condition reflects a severe risk of terrorist attacks:

14. Increase or redirect CRMC personnel to address critical emergency needs.
15. Assign and deploy CRMC emergency response personnel to address critical emergency needs.
16. Assign and pre-position/mobilize specially trained CRMC Mobile Response Team(s) and resources.
17. Provide CRMC support to assist monitoring, managing, and notification of public transportation system status.
18. Provide CRMC support to assist in planning and notification of closed public and government facilities.

## **CRITICAL INFRASTRUCTURE PROTECTION PLAN**

Indiana has many facilities, sites, systems and special events which may be vulnerable to a terrorist attack. This Critical Infrastructure may be divided into the following categories: government services, transportation centers, utility infrastructure, water supplies, information and communications, banking and finance, emergency services, public health, institutions, recreational facilities, commercial and industrial facilities, and miscellaneous.

In recognition of this Critical Infrastructure, SEMA for many years has maintained an annex to their CEMP listing sites and events across the state of Indiana. But since 9/11, a fresh look must be given to insure that an up-to-date and all-encompassing list is maintained. Beyond the updated list, a comprehensive Critical Infrastructure Protection Plan (CIPP) must also be developed/updated to help insure planning, prevention, and response guidelines and resources are in place.

Purdue University recently created a Homeland Security Institute to develop science and technologies in homeland security. Under this initiative, Sandia National Labs and the Homeland Security Institute have partnered to prototype a Disaster Management System (DMS). In the DMS plan, sensors on critical infrastructure will send operational data for analysis and disaster and response planning.

GIS technology and data are important tools to facilitate these efforts, therefore the updating of Indiana's CIPP has been included as part of the CEMP Basic Plan Element.

**EMERGENCY SUPPORT FUNCTIONS - GIS INTEGRATION POINTS**

The Emergency Support Functions tasks listed below are terrorism consequence management specific.

***PUBLIC INFORMATION***

No additional GIS Tasks.

***COMMUNICATIONS AND WARNING***

#	√	Mitigation Task	Resource
		No additional tasks	
#	√	Preparedness Task	Resource
243	7-3	<i>Design and develop secure web-based application to map FBI confirmed credible threats onto the IndianaMAP and NationalMAP*</i>	SEMA Indiana State Police
244	7-4	Integrate Indiana Government Center/Emergency Operations Center evacuation plan maps into GIS	SEMA
#	√	Response Task	Resource
245	7-3	Where possible, geocode location of FBI confirmed credible threats, and notify necessary state agencies and local EMA Directors through secure GIS communication network	SEMA Indiana State Police
246	7-4	If actual incident occurs in Indiana Government Center/Emergency Operations Center provide evacuation support, as needed	SEMA
		<b><i>For biological attack:</i></b>	
247	7-5	Provide incident map access to federal government agencies identified in Federal Response Plan	SEMA Indiana State Police
#	√	Recovery Task	Resource
		No additional tasks	

***INFORMATION AND PLANNING***

No additional GIS tasks.

***RESOURCE SUPPORT***

No additional GIS tasks.

---

\* *Long-term goal and objective*

**FIRE FIGHTING**

No additional GIS tasks.

**HEALTH AND MEDICAL**

#	√	Mitigation Task – Health and Medical	Resource
		<b><i>For chemical attack:</i></b>	
248	7-10	Map location and identify resources for hospital-based decontamination capabilities	Indiana Hospital and Health Association SEMA
		<b><i>For biological attack:</i></b>	
249	7-11	Identify and map location of medical transportation resources and private vendors that can provide items that will be in high demand during public health emergencies	ISDH SEMA Indiana Hospital and Health Association Indiana Pharmacist Alliance
#	√	Preparedness Task – Health and Medical	Resource
		<b><i>For chemical attack:</i></b>	
251	7-15	Identify GIS resources to help coordinate with Emergency Support Functions Hazardous Materials and Public Information to develop public information releases detailing the properties and effects of the specific chemical agent(s) used during the attack, as it pertains to public safety, site re-entry, and site re-habitation	ISDH SEMA IDEM Board of Animal Health
252	7-17	<i>Design and develop an application to interface, geocode and map medical surveillance system data to support the early detection and monitoring of increased call volumes, patient visits, and infectious disease cases*</i>	ISDH Department of Administration SEMA
253	7-18	<i>Design and develop a web-based GIS application to support reporting system for updating response, medical, and public health officials of increases identified by surveillance system*</i>	ISDH SEMA
254	7-19	Design and develop a GIS mapping application to support the State Mass Fatality Plan that addresses the removal, storage, transport, and tracking of deceased remains	SEMA ISDH Coroner Association Funeral Director Association

---

\* Long-term goal and objective

#	√	Preparedness Task – Health and Medical	Resource
256	7-21	Develop a GIS application to support the Emergency Support Functions Hazardous Materials and Public Information to develop public information releases detailing the properties and effects of the specific biological agent(s) used during an attack, as it pertains to public safety, site re-entry, and site re-habitation	ISDH IDEM Fire Marshal SEMA CDC
#	√	Response Task – Health and Medical	Resource
		<b><i>Considerations for conventional, chemical, and biological attacks:</i></b>	
		No additional tasks	
		<b><i>For a biological attack:</i></b>	
258	7-29	<i>Implement a GIS application to interface, geocode and map medical surveillance, monitor medical surveillance system for early detection and monitoring of increased call volumes, patient visits, and infectious disease cases**</i>	ISDH
259	7-30	<i>Implement reporting system for updating response, medical, and public health officials of increases identified by surveillance system*</i>	ISDH
260	7-36	Implement GIS application to coordinate with Emergency Support Functions Hazardous Materials and Public Information, to disseminate public information releases detailing the properties and effects of the specific biological agent(s) used during the attack, as it pertains to public safety, site re-entry, and site re-habitation	ISDH IDEM Fire Marshal SEMA CDC
#	√	Recovery Task – Health and Medical	Resource
		No additional tasks	

**SEARCH AND RESCUE**

No additional GIS tasks.

**HAZARDOUS MATERIALS**

#	√	Mitigation Task – Hazardous Materials	Resource
		<b><i>Considerations for conventional attack:</i></b>	
		No additional tasks	

---

\* Long-term goal and objective

**FOR OFFICIAL USE ONLY**

		<b><i>For chemical attack:</i></b>	
261	7-46	Identify chemical agent information and properties from Emergency Support Function Hazardous Materials to update/incorporate database for GIS HAZMAT modeling applications	SEMA IDEM Fire Marshal
		<b><i>For biological attack:</i></b>	
262	7-47	Identify biological agent information and properties from Emergency Support Function Health and Medical to update/incorporate database for GIS Biohazard modeling applications	SEMA ISDH Fire Marshal
√	√	<b>Preparedness Task - Hazardous Materials</b>	<b>Resource</b>
		<b><i>Considerations for conventional attack:</i></b>	
		No additional tasks	
		<b><i>For chemical attack:</i></b>	
263	7-46	Integrate chemical agent information and properties from Emergency Support Function Hazardous Materials to update/incorporate database for GIS HAZMAT modeling applications	SEMA IDEM
		<b><i>For biological attack:</i></b>	
264	7-47	Integrate biological agent information and properties from Emergency Support Function Health and Medical to update/incorporate database for GIS Biohazard modeling applications	SEMA ISDH
#	√	<b>Response Task - Hazardous Materials</b>	<b>Resource</b>
		<b><i>Considerations for conventional attack:</i></b>	
		No additional tasks	
		<b><i>For chemical attack:</i></b>	
265	7-46	Provide GIS HAZMAT modeling application support, as needed	SEMA IDEM Fire Marshal
		<b><i>For biological attack:</i></b>	
266	7-47	Provide GIS Biohazard modeling application support, as needed	SEMA ISDH Fire Marshal
#	√	<b>Recovery Task - Hazardous Materials</b>	<b>Resource</b>
		No additional tasks	



**LAW ENFORCEMENT**

#	√	Mitigation Task – Law Enforcement	Resource
267	7-55	Identify GIS-based resources to support suspected target(s) locations/area maps to notify law enforcement and emergency management agencies	Emergency Support Function Law Enforcement SEMA
#	√	Preparedness Task - Law Enforcement	Resource
268	7-55	Develop GIS applications to support suspected target(s) locations/area maps to notify law enforcement and emergency management agencies	Emergency Support Function Law Enforcement SEMA
#	√	Response Task - Law Enforcement	Resource
		<i>Considerations for conventional attack:</i>	
		<i>For credible threat:</i>	
269	7-55	Provide suspected target(s) locations/area maps to notify law enforcement and emergency management agencies	Emergency Support Function Law Enforcement SEMA
		<i>For actual incident:</i>	
270	7-59	Help with technical equipment, expertise, and specialized assistance, as needed	Emergency Support Function Resource Support SEMA
		<i>For chemical attack:</i>	
		No additional tasks	
		<i>For biological attack:</i>	
271	7-64	Produce printed and digital maps to help coordinate efforts regarding quarantine and re-entry	ISDH Emergency Support Function Law Enforcement SEMA
#	√	Recovery Task - Law Enforcement	Resource
		No additional tasks	

**SHELTER AND MASS CARE**

No additional GIS tasks.

**TRANSPORTATION**

#	√	Mitigation Task - Transportation	Resource
		<b><i>For chemical and biological attack:</i></b>	
272	7-74	Identify requirements and GIS resources to help locate decontamination areas for vehicles and equipment.	SEMA ISDH IDEM
#	√	Preparedness Task - Transportation	Resource
		<b><i>For chemical attack:</i></b>	
273	7-76	Develop data and application to support evacuation plans for contaminated victims	SEMA Fire Marshal
274	7-77	Develop data and application to locate decontamination resources for vehicles and equipment	SEMA
		<b><i>For biological attack:</i></b>	
275	7-78	Develop data and application to support Emergency Support Function Law Enforcement and Emergency Support Function Health and Medical to develop transportation procedures for providing security for medications, vaccines, and other prophylaxis measures	Indiana State Police ISDH
276	7-79	Develop data and application to support Emergency Support Function Law Enforcement to develop transport routes for supplies coming into affected and quarantined areas	Indiana State Police
#	√	Response Task - Transportation	Resource
		<b><i>For conventional attack:</i></b>	
277	7-80	Develop printed and digital maps to help coordinate additional resources for transport of victims as needed	Emergency Support Function Resource Support DNR MDI
278	7-81	Develop printed and digital maps to coordinate transport of large numbers of deceased victims	Coroner's Association ISDH Funeral Directors Association
		<b><i>For chemical attack:</i></b>	
279	7-82	Develop printed and digital maps to support decontamination of exposed or contaminated transport vehicles	Fire Marshal IDEM MDI

**FOR OFFICIAL USE ONLY**

		<b><i>For biological attack:</i></b>	
280	7-84	Develop printed and digital maps to help coordinate additional Emergency Medical Services transport resources as needed.	ISDH Emergency Medical Services
281	7-85	Develop printed and digital maps to help coordinate requests for additional transport resources for deceased	Coroner's Association Funeral Directors Association
282	7-86	Develop printed and digital maps to help coordinate Emergency Support Function Law Enforcement to provide security for medications, vaccines, and other prophylaxis measures as they are transported into affected areas	Indiana State Police
283	7-87	Develop printed and digital maps to help coordinate with Emergency Support Function Law Enforcement to provide security for supplies transported into affected areas	Indiana State Police
#	√	<b>Recovery Task - Transportation</b>	<b>Resource</b>
		<b><i>For conventional attack:</i></b>	
		No additional tasks.	
		<b><i>For chemical and biological attack:</i></b>	
284	7-89 & 7-91	Develop printed and digital maps to support decontamination of exposed or contaminated response vehicles, equipment, and decontamination sites	IDEM MDI Fire Marshal
285	7-90 & 7-92	Develop Public Information web maps to inform public where transportation resources are safe/unsafe for use	SEMA ISDH INDOT Joint Information Center

***PUBLIC WORKS AND ENGINEERING***

#	√	<b>Mitigation Task - Public Works and Engineering</b>	<b>Resource</b>
		No additional tasks	
#	√	<b>Preparedness Task - Public Works and Engineering</b>	<b>Resource</b>
		No additional tasks	
#	√	<b>Response Task - Public Works and Engineering</b>	<b>Resource</b>
		<b><i>Considerations for conventional attack:</i></b>	

**FOR OFFICIAL USE ONLY**

		<b><i>For credible threat:</i></b>	
286	7-94	Integrate architectural and site plans of suspected target with GIS, as needed	Site's physical plant, Office of Public Records Dept of Fire and Building Services
		<b><i>For actual incident:</i></b>	
287	7-95	Develop printed and digital maps of infrastructure to support performance of site inspection of remaining structural integrity as it pertains to safety of search and rescue and recovery operations	Emergency Support Function Public Works and Engineering
		<b><i>For chemical attack:</i></b>	
288	7-96	Develop printed and digital maps of infrastructure to support Emergency Support Function Hazardous Material to decontaminate affected areas, as needed	IDEM
289	7-97	Develop printed and digital maps of infrastructure for the Emergency Support Function Law Enforcement to support evidence preservation and collection, as needed	FBI Indiana State Police Local Law Enforcement
290	7-98	Develop printed and digital maps of infrastructure for the hazardous materials team(s) to identify and control run off hazards at incident site during and after decontamination.	IDEM Fire Marshal
		<b><i>For biological attack:</i></b>	
291	7-99	Develop printed and digital maps of infrastructure for the Emergency Support Function Health and Medical for response to the release of a biological agent	ISDH Board of Animal Health IDEM DNR
<b>#</b>	<b>√</b>	<b>Recovery Task - Public Works and Engineering</b>	<b>Resource</b>
		<b><i>For conventional attack:</i></b>	
292	7-100 & 7-101	Develop printed and digital maps to support reconstruction, restoration, and site inspection of affected essential sites and infrastructures, as necessary	SEMA
293	7-102	Develop printed and digital maps to support Emergency Support Function Public Information in reassuring the public that the affected areas are safe for re-entry and habitation, as necessary	Joint Information Center
		<b><i>For chemical attack:</i></b>	

**FOR OFFICIAL USE ONLY**

294	7-103	Develop printed and digital maps to support decontamination efforts for affected areas of incident site, as necessary	IDEM Fire Marshal
		<b><i>For biological attack:</i></b>	
29x	n/a	Develop printed and digital maps to track and model contamination, and support decontamination efforts for affected areas of incident site, as necessary	ISDH Board of Animal Health IDEM DNR

**ENERGY**

#	√	Mitigation Task - Energy	Resource
		No additional Tasks	
#	√	Preparedness Task - Energy	Resource
		<b><i>Considerations for conventional attack:</i></b>	
295	7-106	Create a GIS layer to map the locations, boundary, and critical infrastructure data of entities requesting critical infrastructure status for priority restoration in case of an emergency	Utility Emergency Operating Plans
296	7-107	<i>With the Energy Element, expand the energy service monitoring system GIS application to facilitate the early (and automated) detection of a significant disruption of energy service (a loss of 10% service or loss of power to 1,000 or more customers)*</i>	Individual Utilities
297	7-108	<i>With the Energy Element, develop procedures for energy providers to provide SEMA and the CRMC with automated reporting if a significant energy service disruption occurs (a loss of 10% service or loss of power to 1,000 or more customers)*</i>	IURC SEMA
		<b><i>For chemical and biological attack:</i></b>	
298	7-109	Design and develop GIS procedures and map products to support decontamination of exposed or contaminated energy production and distribution facilities and personnel	Emergency Support Function Hazardous Material

---

\* Long-term goal and objective

#	√	Response Task - Energy	Resource
		<b><i>For conventional attack:</i></b>	
299	7-110	Create a GIS layer to map the locations, critical infrastructure, and temporary service territories of emergency energy sources	IURC IDEM
300	7-111	<i>Use GIS to analyze and create outage and restoration plan maps to assist reestablishing energy to affected areas based on priority of emergency response and hazard mitigation needs *</i>	<i>Utilities' Emergency Operating Plans</i>
301	7-112	In conjunction with the Public Information Element, provide incident information and status of activities to energy providers in affected areas, to those in other regions or states, and to mutual aid partners	SEMA IURC
		<b><i>For chemical attack:</i></b>	
		No additional tasks	
		<b><i>For biological attack:</i></b>	
		No additional tasks	
#	√	Recovery Task - Energy	Resource
		<b><i>For conventional attack:</i></b>	
		No additional tasks	
		<b><i>For chemical and biological attack:</i></b>	
302	7-114 & 7-115	If energy production or distribution facility is attacked, create printed and digital map products to support decontamination of exposed or contaminated energy production and distribution facilities and personnel as necessary	IDEM ISDH Fire Marshal

**DAMAGE ASSESSMENT**

#	√	Mitigation Task – Damage Assessment	Resource
303	n/a	In coordination with the Damage Assessment Element, identify GIS-based disaster modeling applications and data to address acts of terrorism and weapons of mass destruction (WMD)	SEMA

---

\* Long-term goal and objective

**FOR OFFICIAL USE ONLY**

#	√	<b>Preparedness Task - Damage Assessment</b>	<b>Resource</b>
304	n/a	In coordination with the Damage Assessment Element, design and develop GIS-based disaster modeling applications and data to address acts of terrorism and WMD	SEMA
#	√	<b>Response Task - Damage Assessment</b>	<b>Resource</b>
		No additional tasks	
#	√	<b>Recovery Task - Damage Assessment</b>	<b>Resource</b>
		<i><b>Considerations for conventional attack:</b></i>	
305	7-116 & 7-117	Coordinate with Emergency Support Functions for Recovery, Public Works and Engineering, and Law Enforcement Element to prepare damage assessment summary maps to record extent of damage and evidentiary data to buildings, properties, and critical infrastructures	SEMA
		<i><b>For chemical and biological attack:</b></i>	
306	7-118	Coordinate with Emergency Support Function Public Works and Engineering and Emergency Support Function Hazardous Materials to map and determine extent of property damage and decontamination or replacement necessary	SEMA

## **IX. CEMP – MEDICATION AND MEDICAL SUPPLY ACQUISITION AND DISTRIBUTION ANNEX**

This element of the CEMP addresses the specialized emergency response operations related to medication and medical supply acquisition and distribution efforts that may be needed by Indiana in the event of a natural or man-made disaster, pandemic illness, and/or act of terrorism. It is intended to not only meet the operational requirements for an effective response within the state, but also to comply with pertinent federal government planning requirements.

### **MEDICATION AND MEDICAL SUPPLY ACQUISITION AND DISTRIBUTION ELEMENT - GIS INTEGRATION POINTS**

Task item numbers are not assigned in the current plan annex. To be able to cross reference with this document, each task item in the source plan was numbered sequentially.

**Primary Coordinating Agency:** The C-TASC Crisis and Response Mapping Center (CRMC)

#### **Support Agencies:**

- ☐ Indiana State Department of Health (ISDH)
- ☐ Other Supporting Agencies

### **MITIGATION – MEDICATION AND MEDICAL SUPPLY ACQUISITION AND DISTRIBUTION**

The C-TASC Crisis and Response Mapping Center will identify opportunities and plan support for the following tasks:

#	√	MITIGATION TASK	RESOURCE
307	1	In conjunction with the Health and Medical Emergency Support Function, develop an ISDH GIS Implementation Plan with the CRMC	ISDH C-TASC SEMA ITOC
308	2	Determine the current on-hand data within the ISDH for integration with the GIS data and applications	ISDH ITOC
309	5	Identify a method for handling legal, security, and ethical questions related to managing For Official Use Only, commercial, and private GIS data during an emergency	ISDH ITOC
310	8	Provide assistance and/or training on supporting the GIS integration plan	ISDH ITOC
311	8	Identify and maintain a list of trained personnel to operate at the local and state level in providing GIS support services during an emergency	ISDH ITOC



## PREPAREDNESS – MEDICATION AND MEDICAL SUPPLY ACQUISITION AND DISTRIBUTION

Map baseline resource data for disaster response plan integration (GIS metadata, geocoding, publishing, and applications) to support the following tasks:

#	√	PREPAREDNESS TASK	RESOURCE
312	10	Map on-hand hospital pharmaceuticals and medical supplies	ISDH
313	11	Map on-hand public health department pharmaceuticals and medical supplies	ISDH
314	12	Map on-hand public pharmacy pharmaceuticals and medical supplies	ISDH
315	13	Map on-hand pharmaceutical vendors' pharmaceuticals and medical supplies	ISDH
316	14	Map National Medical Response System pharmaceuticals and medical supplies and reception sites for land, air, and water delivery	ISDH
317	15	Map on-hand Disaster Medical Assistance Team pharmaceuticals and medical supplies	ISDH
318	17	Map storage and distribution of regionally based pharmaceuticals and medical supply caches	ISDH
319	18	Map storage, distribution, and dispensing resources from the National Pharmaceutical Stockpile	ISDH
320	21 & 30	Map location and identification of Medical Emergency Support personnel	ISDH
321	26 & 57	Map mass medication sites for a select part or an entire population including Mass Medication Centers and homebound/non-transportable population, and public transportation resources	ISDH SEMA
322	28	Map location and identification of available resources to use to support pharmaceutical cache (Off-loading, Reorganization, Security, Transportation, Distribution, Documentation, Repackaging and Demobilization)	ISDH SEMA
323	29	Map location and identification of available mental health support resources	ISDH
324	54	Map location and identification of available standby Emergency Medical Services support for Mass Medication Centers	ISDH
325	56	Map location and identification of available Poison Control Centers for mass medication initiative	ISDH

## RESPONSE – MEDICATION AND MEDICAL SUPPLY ACQUISITION AND DISTRIBUTION

Support disaster response applications using both live incident data and off-the-shelf GIS Preparedness Data - GIS metadata, geocoded locations and custom GIS applications the following tasks.

#	√	RESPONSE TASK	RESOURCE
326	64	Provide GIS analysis of current and historic health related incidents provided through the Health and Medical Emergency Support Function	ISDH SEMA
327	67	Provide printed and digital maps to assist coordination and mobilization of needed local and statewide resources from non-affected regions using Medication and Medical Supply Acquisition and Distribution Procedure	ISDH SEMA
328	68	Provide printed and digital maps to assist in coordinating collection and transportation of available regional resources to affected area(s)	ISDH SEMA
329	73	Provide printed and digital maps to assist in coordinating the Medication and Medical Supply Acquisition and Distribution Procedure	ISDH SEMA
330	74	Provide GIS analysis and maps to help monitor Medication and Medical Supply Acquisition and Distribution Procedure	ISDH SEMA
331	75	<i>Provide Syndromic Surveillance GIS analysis to assist in determining need for isolated or widespread implementation of mass medication initiative*</i>	<i>ISDH SEMA</i>
332	76-79	Provide printed and digital maps to assist in coordinating support for mass medication initiative	ISDH Local Health Department SEMA Local Emergency Management Agency Family and Social Service Agency Indiana State Police
333	80	Support Demobilization Procedure for the Mass Medication Center	ISDH Local Health Department SEMA Local Emergency Management Agency

---

\* Long-term goal and objective

#	√	RESPONSE TASK	RESOURCE
334	81	Support Demobilization Procedure for the National Pharmaceutical Stockpile	ISDH Local Health Department SEMA Local Emergency Management Agency

## RECOVERY – MEDICATION AND MEDICAL SUPPLY ACQUISITION AND DISTRIBUTION

Support disaster recovery applications using both live incident response data, and off-the-shelf GIS preparedness data - GIS metadata, geocoded locations and custom GIS applications for the following tasks:

#	√	RECOVERY TASK	RESOURCE
335	82	Provide printed and digital maps to assist in coordinating recovery and restitution of regional medication and medical supply cache	ISDH Local Health Department SEMA, Local Emergency Management Agency
336	83	Provide printed and digital maps to assist in coordinating recovery of assets and disposition of resources for the National Pharmaceutical Stockpile	ISDH Local Health Department SEMA Local Emergency Management Agency
337	85	Provide printed and digital maps to assist in coordinating recovery and restitution of state resources used for Mass Medication Center(s)	ISDH Local Health Department SEMA Local Emergency Management Agency
338	86	Support analyze of data from mass medication initiative	ISDH Local Health Department SEMA Local Emergency Management Agency

FOR OFFICIAL USE ONLY

#	✓	RECOVERY TASK	RESOURCE
339	88 & 89	Support preparation of required documentation for pharmaceutical cache sites and Mass Medication Centers and Mass Medication Initiative	ISDH Local Health Department SEMA Local Emergency Management Agency

- END OF DOCUMENT -

## **APPENDIX A: GIS DATA – MINIMUM ESSENTIAL DATA SETS (MEDS)**

The first chart in this appendix detail the minimum essential GIS data layers needed to support each of Indiana's CEMP Emergency Support Functions (Plan Elements). The second chart shows the minimum essential GIS data layers needed to support of emergency management incidents that are typical to the State of Indiana.

The list of GIS data in these tables were defined in the Homeland Security Infrastructure Program (HSIP) Tiger Team Report Version 1.1, September 2002 developed by NIMA and USGS. The GIS data is grouped by the data Categories and Sectors defined in this report, and represents the Minimum Essential Data Sets (MEDS) recommended in this report for both Urban and National coverage.

In the electronic version of this plan the charts on the following pages can be found in the document: [C-TASC GIS Implementation Plan Appendix A \(FINAL\).xls](#).





**FOR OFFICIAL USE ONLY**

**- END OF DOCUMENT -**



## APPENDIX B: SOURCE DOCUMENTS

### PRIMARY SOURCE DOCUMENTS

**Indiana Comprehensive Emergency Management Plan**

January 14, 2003

[IN CEMP Working Copy Jan 14 03.doc](#)

**Indiana Comprehensive Emergency Management Plan**

**National Pharmaceutical Stockpile Plan**

Medication and Medical Supply Acquisition and Distribution Annex

[IN CEMP NPS Plan Final Draft 01-13-03 .doc](#)

**Incident Command System Course**

**Indiana State Emergency Management Agency**

**Emergency Management Training Branch**

May 14, 2002

[IN SEMA ICS - table of contents.doc](#) (with hyperlinks to files)

**Federal Response Plan INTERIM, January 2003**

9230.1-PL

FEMA - Signed agreement among 27 Federal departments and agencies, including the American Red Cross, that...Supports implementation of ... The Robert T. Stafford Disaster Relief and Emergency Assistance Act.

[FEMA FRP2003.pdf](#)

**The Robert T. Stafford Disaster Relief and**

**Emergency Assistance Act**

[The Robert T Stafford ACT.doc](#)

**CONPLAN, January 2001**

**United States Government**

**Interagency Domestic Terrorism**

**Concept of Operations Plan**

By the Federal Bureau of Investigation

[FBI conplan.pdf](#) [CONPLAN Terrorism Briefing V 2.ppt](#)

## SECONDARY SOURCE DOCUMENTS

### **Indiana's Strategy for Homeland Security**

March 5, 2003

[Indiana Homeland Security Strategy.pdf](#)

### **State of Indiana Animal Health Emergencies Exercise**

#### **After-Action Report and Economic Impact Study**

[Indiana 4050-000 NTD AAR.doc](#) [Indiana 4050-000 A-Eco Impact Study.doc](#)

### **Hoosier Guardian GIS Report [DRAFT]**

Field GIS for Homeland Security Response

Lessons learned from Hoosier Guardian, October 31 - November 1, 2002

Indiana GIS Council

[Hoosier Guardian GIS Report.DOC](#)

### **Homeland Security Infrastructure Program (HSIP)**

#### **NIMA & USGS - Tiger Team Report**

For Official Use Only

Version 1.1 September 2002

[HSIP Version1\\_1.pdf](#)

### **Comments to the National Imagery and Mapping Agency (NIMA) and the United States Geological Survey (USGS) on the HSIP Tiger Team Report**

from the National States Geographic Information Council (NSGIC)

November 12, 2002

[HSIP comments from NSGIC.doc](#)

### **Homeland Infrastructure Foundation Level Database (HIFLD) Catalog**

July 2002

[HIFLD CATALOG\\_2002\\_07\\_02.xls](#)

### **INDIANA EMERGENCY RESPONSE COMMISSION (IERC)**

Local Emergency Planning Committee Policy Manual

(Table of Contents with hyperlinks to Sections 1 – 6)

May 18, 1998

[IERC - LEPC Policy Manual TOC.htm](#)

### **Indiana Local Government – Comprehensive Emergency Management Plans (Examples)**

**Howard County:** [Howard County CEMP.doc](#)

**City of Indianapolis / Marion County:** [Indy-Marion County EMA - Hazards.htm](#)

[Cover Table of Contents.pdf](#) [Part 1 Emergency Management Overview.pdf](#)

[Part 2 Initial Response Operations.pdf](#) [Part 3 Extended Response Operations.pdf](#)

[Part 4 Recovery Operations.pdf](#) [Appendix A Statues and Ordinances.pdf](#)

[Appendix B Incident Specific Checklists.pdf](#) [Appendix C ESF Checklists.pdf](#)

[Appendix D ESF Descriptions.pdf](#) [Appendix E Disaster Assistance Programs.pdf](#)

## **ICS - INCIDENT COMMAND SYSTEM**

Independent Study Course, January 1998

By FEMA Emergency Management Institute, IS-195

[FEMA ICS - 195comp.pdf](#)

<http://response.restoration.noaa.gov/oilaid/ICS/ICS.html>

## **EPA - National Contingency Plan**

National Oil and Hazardous Substances Pollution Contingency Plan (NCP)

July 1, 1996

[EPA NCP Key Provisions.htm](#)   [EPA NCP 7-1-96.pdf](#)

## **EPA - Radiological Emergency Response Plan**

January 10, 2000

[EPA RERP-1-00.pdf](#)

## **EPA – One Plan**

**The National Response Team's**

**Integrated Contingency Plan Guidance**

June 5, 1996

[EPA One Plan 23388.pdf](#)

## **FEMA – National Preparedness**

**Tool Kit for Managing the Emergency Consequences of Terrorist Incidents**

**Interim Planning Guide for State and Local Governments**

July 2002

[toolkit toc.pdf](#) [toolkit unit 01.pdf](#) [toolkit unit 02.pdf](#) [toolkit unit 03.pdf](#)

[toolkit unit 04.pdf](#) [toolkit unit 05.pdf](#) [toolkit unit 06.pdf](#) [toolkit unit 07.pdf](#)

[toolkit unit 08.pdf](#) [toolkit unit 09.pdf](#) [toolkit unit 10.pdf](#) [toolkit unit 11.pdf](#)

[toolkit app a.pdf](#) [toolkit app b.pdf](#) [toolkit app c.pdf](#) [toolkit app d.pdf](#) [toolkit app e.pdf](#)

## **FEMA - State and Local Guide (SLG) 101:**

**Guide for All-Hazard Emergency Operations Planning**

September 1996

[FEMA SLG101.pdf](#)

## **FEMA - Guide for All-Hazard Emergency Operations Planning**

**Attachment G – Terrorism**

April 2001

[FEMA SLG G allhzpln.pdf](#)

## **FEMA - STATE AND LOCAL MITIGATION PLANNING**

**How-To Guide**

**Getting Started**

**Building Support for Mitigation Planning**

FEMA 386-1 September 2002

[FEMA Getting Started Mitigation\\_howto1.pdf](#)

## **FEMA - STATE AND LOCAL MITIGATION PLANNING**

### **How-To Guide**

FEMA 386-2 September 2002

[FEMA Mitigation Guide howto 2\386civr.pdf](#), [386toc.pdf](#), [386fwrdd.pdf](#), [386step1.pdf](#), [386step2.pdf](#), [386step3.pdf](#), [386step4.pdf](#), [386appnda.pdf](#), [386appndb.pdf](#), [386appndc.pdf](#), [386afrwrdd.pdf](#), [386civrck.pdf](#)

## **FEMA**

## **STATE AND LOCAL MITIGATION PLANNING**

### **How-To Guide**

### **Integrating Human-Caused Hazards Into Mitigation Planning**

FEMA 386-7 September 2002

[FEMA Mitigation Guide howto7.pdf](#)

## **NRC - Federal Radiological Emergency Response Plan (FRERP)--Operational Plan**

May 1, 1996

[NRC FRERP Operational Plan.htm](#)

## **USGS**

### **Legal Limits on Access to and Disclosure of Disaster Information, 1999**

A report by a Panel of the  
National Academy of Public Administration  
For the National Mapping Division of the  
United States Geological Survey  
[USGS - legallimhud.pdf](#)

### **Health and Medical Services Support Plan for the Federal Response to Acts of Chemical/Biological Terrorism** [C-BHMPlan.pdf](#)

### **Military Assistance to Civil Authorities (DODD 3025.15)**

[MSCA DOD 3025.15.pdf](#) [MSCA DRRG.pdf](#) [MSCA Lessons Learned.pdf](#)

### **The Disaster Mitigation Act of 2000 (Overview)**

[Disaster Mitigation Act of 2000 RISC.ppt](#)

## **ADDITIONAL REFERENCE DOCUMENTS**

### **National Strategy for Homeland Security**

President George W. Bush

July 2002

[Bush - Presidents Nat\\_Strat\\_HLS.pdf](#)

### **The National Strategy for the Physical Protection of Critical Infrastructures and Key Assets**

President George W. Bush

February 2003

[Bush - National Strategy for Physical Protection of CI.pdf](#)

### **THE NATIONAL GOVERNOR'S ASSOCIATION (NGA)**

The National Governors Association Center for Best Practices

#### **A Governor's Guide to Emergency Management**

##### **Volume One: Natural Disasters**

2001

[NGA - REPORTEMERGUIDE2001.pdf](#)

#### **A Governor's Guide to Emergency Management**

##### **Volume Two: Homeland Security**

2002

[NGA - GOVSGUIDEHS2.pdf](#)

### **NATIONAL LEAGUE OF CITIES (NLC)**

#### **Local Officials' Guide to Domestic Terrorism:**

##### **Resources for Local Governments, 2000**

By The National League of Cities

[NLC - Terrorism.pdf](#)

### **STANDARDIZED EQUIPMENT LIST FOR 2001**

#### **FOR INTERAGENCY RESPONSE OPERATIONS IN COMBATING WEAPONS OF MASS DESTRUCTION TERRORISM**

Inter-Agency Board (IAB) for Equipment Standardization and Interoperability

[SEL2001.htm](#)

### **NATIONAL PLAN FOR INFORMATION SYSTEMS PROTECTION**

The White House, 2000

[CIP-plan.pdf](#)

### **CRITICAL INFRASTRUCTURE PROTECTION**

The White House, 2001

[CIP\\_2001\\_CongRept.pdf](#)

**BIOLOGICAL TERRORISM IN THE UNITED STATES:  
THREAT, PREPAREDNESS, AND RESPONSE**

Submitted by the Chemical and Biological Arms Control Institute

November 2000

[PDFCDCFinalReport.pdf](#)

**Annual Report to The President and The Congress of the  
Advisory Panel to Assess Domestic Response Capabilities  
for Terrorism Involving Weapons of Mass Destruction**

**I. Assessing The Threat**

December 15, 1999

[Rand terror1.pdf](#)

**II. Toward a National Strategy for Combating Terrorism**

December 15, 2000

[Rand terror2.pdf](#)

**III. For Ray Downey**

December 15, 2001

[Rand terror3.pdf](#)

**IV. Implementing The National Strategy**

December 15, 2002

[Rand terror4.pdf](#)

**PRESIDENT GEORGE W. BUSH**

**The Homeland Security Act of 2002**

November 25, 2002

[Bush - HR\\_5005\\_enr.pdf](#)

**The Department of Homeland Security Plan**

June 2002

[Bush - Department of Homeland Security Plan.pdf](#)

**The 2003 Homeland Security Budget**

Overview

[Bush - Protecting The Homeland 2003 budget.pdf](#)

**The White House - The Department of Homeland Security**

January 2003

[Emergency Preparedness and Response Overview](#)

**SECURING THE HOMELAND STRENGTHENING THE NATION**

2003 Budget Initiatives

[Bush - Homeland\\_security\\_book.pdf](#)

**- END OF DOCUMENT -**

## APPENDIX C: TECHNOLOGY RESEARCH REPORT

(SEPARATE WORD DOCUMENT)

[C-TASC GIS Implementation Plan Appendix C \(FINAL\).doc](#)

**APPENDIX D: ABBREVIATIONS AND ACRONYMS**

<b>ACRONYM</b>	<b>DEFINITION</b>
ADIOS	Automated Data Inquiry for Oil Spills
AI	AccessIndiana
ALOHA	Aerial Locations of Hazardous Atmospheres
AVL	Automated Vehicle Location
AWWA	American Water Works Association
CAMEO	Computer Aided Management of Emergency Operations
CATS	Consequences Assessment Tools Set
CDC	Centers for Disease Control
CEMP	Comprehensive Emergency Management Plan
CHAS	Comprehensive Hazard Assessment System
CIO	Chief Information Officer
CIPP	Critical Infrastructure Protection Plan
CONPLAN	Concept of Operations Plan
COTS	Commercially available Off-The-Shelf
CRMC	Crisis and Response Mapping Center
CSEPP	Chemical Stockpile Emergency Preparedness Program
C-TASC	Counter-Terrorism and Security Council
CVAT	Community Vulnerability Assessment Tool
DHS	Department of Homeland Security
DMS	Disaster Management System
DNR	Department of Natural Resources
DOD	Department of Defense
DOIT	Department of Information Technology
DOT	Department of Transportation
DTRA	Defense Threat Reduction Agency
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESRI	Environmental Systems Research Institute
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
FGDC	Federal Geographic Data Committee
FRERP	Federal Radiological Emergency Response Plan
FRP	Federal Response Plan
GASB-34	Governmental Accounting Standards Board 34
GATHER	Geographic Analysis Tools for Health and Environmental Research
GI	Geographic Information
GIS	Geographic Information System
GNOME	General NOAA Oil Modeling Environment
GOS	Geospatial One-Stop
GPS	Global Positioning System
GUIDO	Geo-Urban Infrastructure for Disaster Operations
GUMP	Geographic Utility for Mitigation and Planning



**FOR OFFICIAL USE ONLY**

HAZMAT	Hazardous Materials
HAZUS	Hazards US
HE	High Explosives
HPAC	Hazard Prediction and Assessment Capability
HSIP	Homeland Security Infrastructure Program
IAB	Inter-Agency Board
ICS	Incident Command System
IDEM	Indiana Department of Environmental Management
IGIC	Indiana GIS Council
IMAGIS	Indianapolis Mapping and Geographic Infrastructure System
INGISI	Indiana Geographic Information Systems Initiative
ISAC	Information Sharing and Analysis Center
ISDH	Indiana State Department of health
IT	Information Technology
I-Team	Implementation Team
ITOC	Information Technology Oversight Committee
IURC	Indiana Utilities Regulatory Commission
JIC	Joint Information Center
Lat/Long	Latitude/Longitude
LEPC	Local Emergency Planning Committee
MDI	Military Department of Indiana
MH	Multiple Hazards
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
NGA	National Governors' Association
NIBS	National Institute of Building Sciences
NIMA	National Imagery and Mapping Agency
NOAA	National Oceanic and Atmospheric Administration
NRC	Nuclear Regulatory Commission
NSDI	National Spatial Data Infrastructure
NSGIC	National States Geographic Information Council
OGC	Open GIS Consortium
OR&R	Office of Response and Restoration
OSSM	On-Site Spill Model
REPP	Radiological Emergency Planning
RIDS	Response Information Data Sheets
RRS	Response Resource Sustainability
RSAC	Remote Sensing Application Center
SAIC	Science Applications International Corporation
SEMA	State Emergency Management Agency
TNM	The National Map
UMESC	Upper Midwest Environmental Sciences Center
USDA	United States Department of Agriculture
AVIC	Area Veterinarian in Charge
USGS	United States Geographic Survey
WMD	Weapons of Mass Destruction